

JK lighting LED Luminaire Optical Testing Report



Fujian Juan Kuang Yaming Electric Ltd

LumCAT:	Luminaire: GC201-180W-P540-D1-PCD-HK
Report No: GC201-180W-P540-D1-PCD-HK	Voltage(V): 0.000
Test No: JK Lighting lab 2016 0921	Current(A): 0.000
LampCAT: :	Power (W): 200.700
Lamp flux(lm)	PF: 0.000
Number of Lamps: 1	Ballast type:
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 23714.85
Lumens(lm)/Power(W): 118.16
Central intensity(cd): 7697.010
Maximum intensity(cd): 7731.430
Angle of maximum intensity: C=202.5 =1.0
Beam Angle(50% lmax): [C0__180]Left=54.9 Right=59.5
[C90__270]Left=57.4 Right=56.9
Field angle(10% lmax): [C0__180]Left=85.0 Right=90.1
[C90__270]Left=87.8 Right=87.3
Effective flux(lm): 23556.60
IES Nema Type : Type7H×7V



Equipment: GMS2200
Temperature(°C): 25

Date:
Humidity(%): 60%

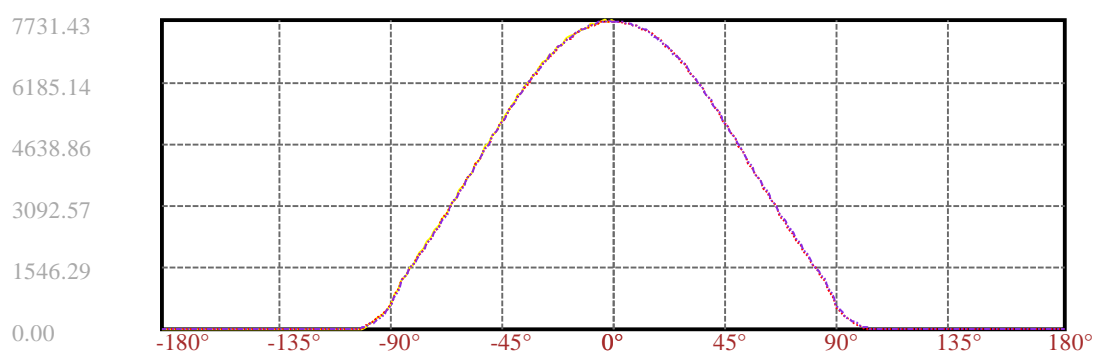
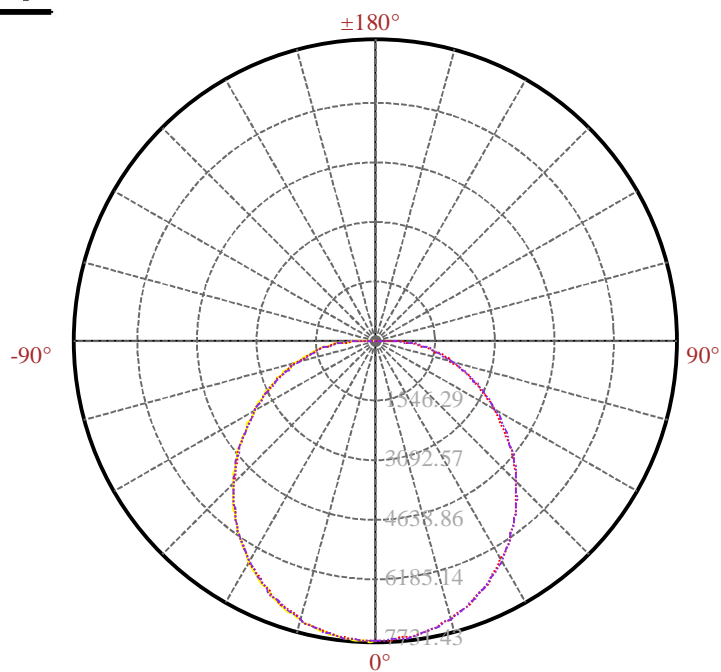
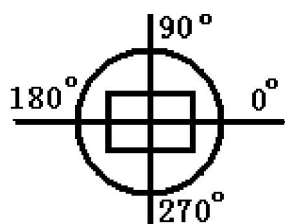
Operator:
Distance(m): 13.72

V \ H		H																			Total	
V		-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90	---	---
	-90	1.5	5.1	9.7	14.9	20.1	24.8	28.6	31.3	32.5	32.4	30.8	27.9	23.9	19.1	14.0	9.1	4.7	1.3		331.6	
	-80	1.8	7.9	16.4	26.1	36.1	45.7	53.9	59.8	62.6	62.4	59.1	53.0	44.7	35.1	25.2	15.7	7.4	1.7		614.5	
	-70	2.2	10.1	21.3	35.0	49.9	64.8	77.9	87.5	92.4	92.1	86.7	76.9	63.7	48.9	34.1	20.7	9.7	2.1		876.1	
	-60	2.6	11.9	25.9	43.7	63.8	84.3	102.8	116.6	123.8	123.6	115.9	102.0	83.7	63.0	42.7	25.1	11.5	2.4		1145.3	
	-50	2.8	13.4	30.0	51.9	77.3	103.5	127.4	145.5	154.9	154.6	144.7	126.7	102.9	76.6	51.0	29.2	13.0	2.7		1408.3	
	-40	3.1	14.7	33.7	59.3	89.5	121.1	149.7	171.6	183.2	182.7	170.6	149.1	120.4	88.7	58.4	32.9	14.2	2.9		1645.6	
	-30	3.2	15.7	36.6	65.3	99.6	135.5	167.9	192.9	206.3	205.9	192.4	167.5	134.6	98.7	64.4	35.8	15.2	3.1		1840.6	
	-20	3.3	16.4	38.6	69.5	106.7	145.7	181.2	207.9	222.6	222.3	208.2	180.7	144.7	105.7	68.6	37.8	15.9	3.2		1978.9	
	-10	3.4	16.7	39.7	71.6	110.2	150.7	187.6	215.7	230.5	230.7	215.6	187.0	149.7	109.2	70.8	38.9	16.2	3.2		2047.4	
	0	3.4	16.7	39.6	71.6	110.2	150.5	187.5	215.6	230.5	230.3	215.1	186.8	149.5	109.1	70.7	38.8	16.2	3.2		2045.5	
	10	3.3	16.4	38.6	69.4	106.5	145.4	181.0	208.0	221.9	221.7	206.8	179.9	144.2	105.4	68.5	37.8	15.8	3.2		1973.8	
	20	3.2	15.7	36.5	65.1	99.5	135.3	167.9	192.2	205.3	205.2	191.5	166.3	133.8	98.2	64.2	35.6	15.2	3.1		1833.7	
	30	3.1	14.7	33.6	59.1	89.3	120.9	149.3	170.4	181.9	181.7	169.5	147.6	119.3	88.1	58.1	32.7	14.2	2.9		1636.4	
	40	2.8	13.4	30.0	51.8	77.0	103.1	126.6	144.2	153.9	153.6	143.5	125.5	101.7	75.8	50.6	29.0	12.9	2.7		1398.1	
	50	2.6	11.9	25.8	43.5	63.6	83.9	101.7	115.2	122.6	122.4	114.8	100.9	82.6	62.2	42.3	24.9	11.4	2.4		1134.6	
	60	2.2	10.1	21.3	34.8	49.7	64.3	77.0	86.5	91.6	91.3	85.7	75.7	62.7	48.2	33.7	20.5	9.6	2.1		867.0	
	70	1.9	7.9	16.4	25.9	35.8	45.2	53.2	59.1	62.1	61.8	58.2	52.0	44.0	34.7	24.9	15.5	7.3	1.7		607.5	
	80	1.5	5.2	9.8	14.9	20.1	24.7	28.6	31.3	32.6	32.3	30.4	27.4	23.5	18.9	13.9	8.9	4.7	1.3		330.0	
	90																					
Total	---	47.8	223.9	503.5	873.5	1304.8	1749.3	2149.8	2451.2	2611.4	2607.1	2439.6	2132.8	1729.6	1285.3	856.0	489.0	215.0	44.9		23714.8	

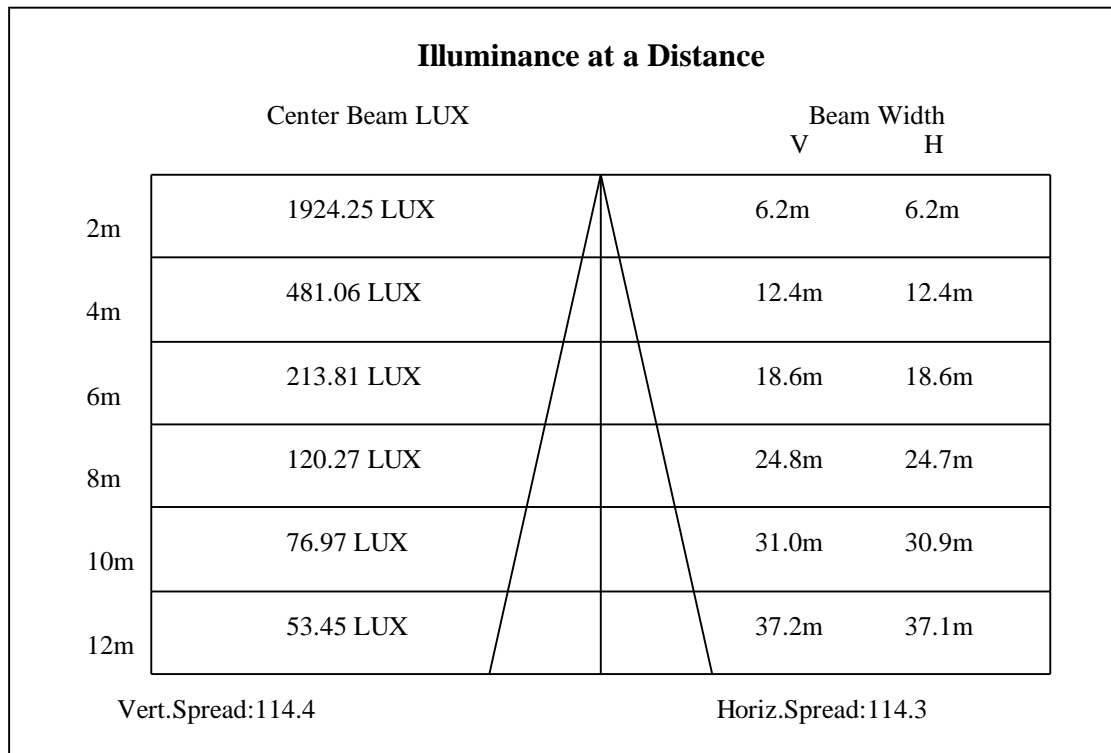
Equipment: GMS2200
Temperature(°C): 25

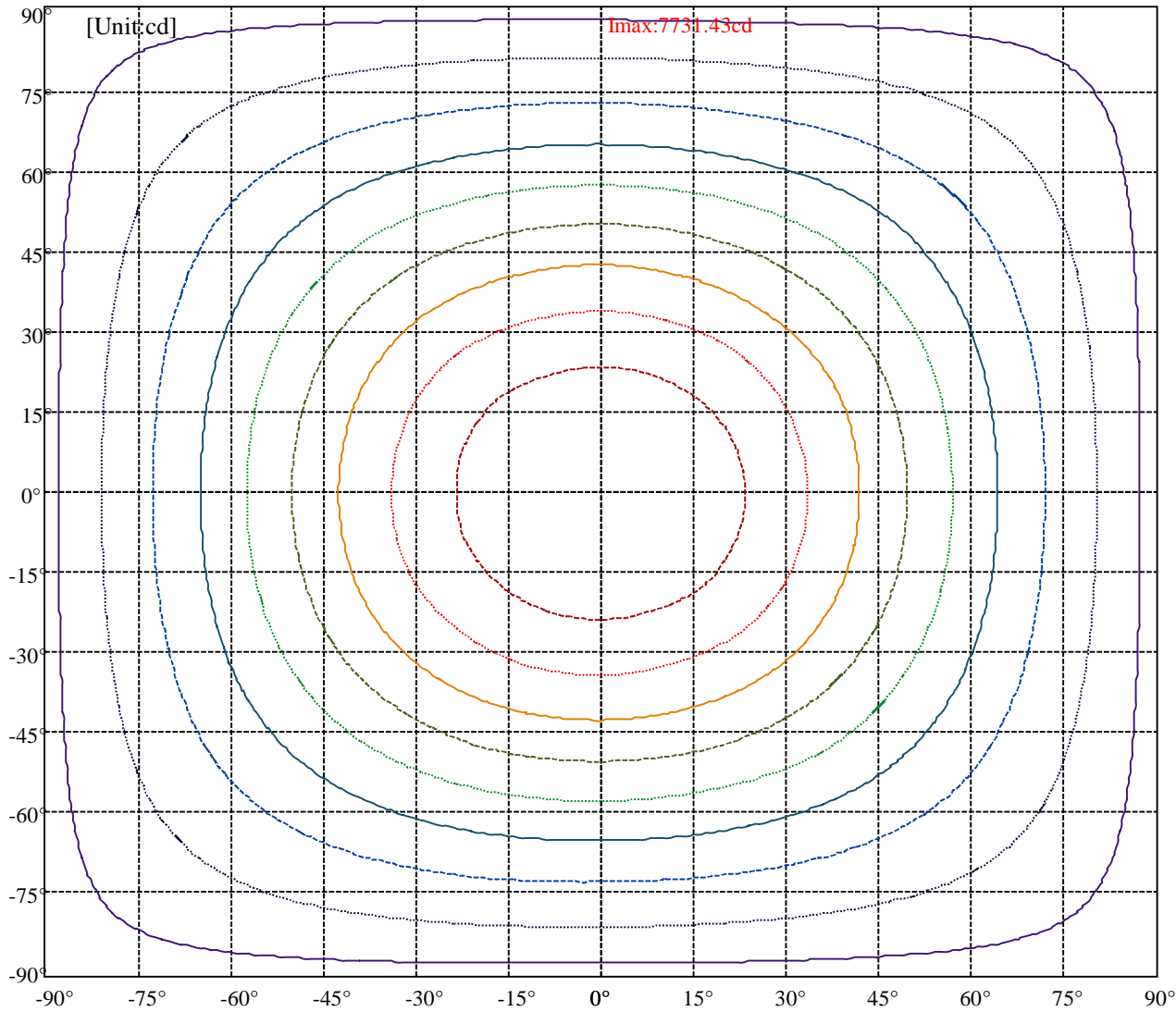
Date:
Humidity(%): 60%

Operator:
Distance(m): 13.72



C202.5(Max): —————
 C0/C180:
 C90/C270: - - - - -



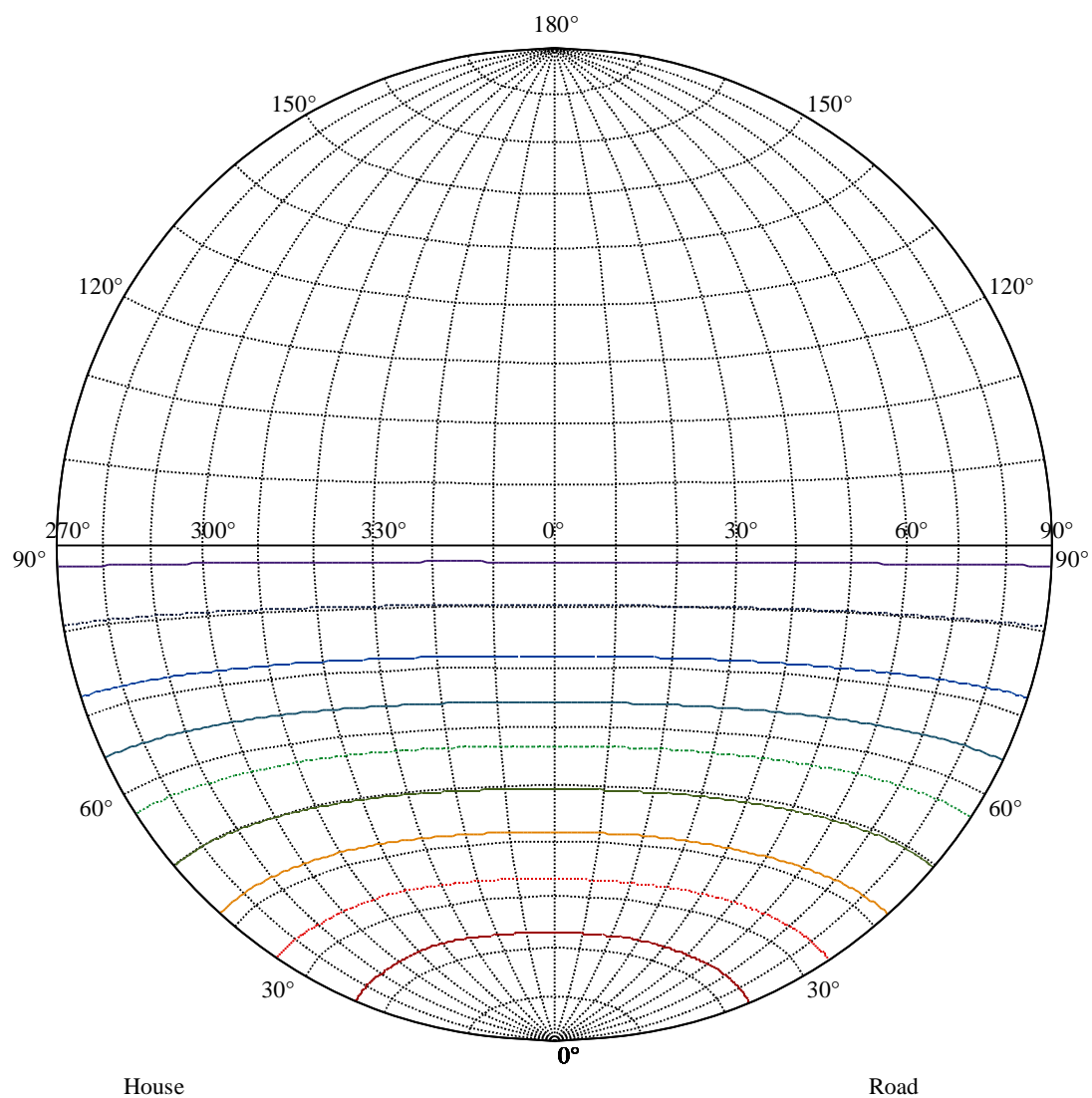


(10% Imax)	771.587	—
(20% Imax)	1543.17	----
(30% Imax)	2314.76	- - - -
(40% Imax)	3086.35	— — — —
(50% Imax)	3857.94
(60% Imax)	4629.52	- . - . - .
(70% Imax)	5401.11	— — — —
(80% Imax)	6172.7
(90% Imax)	6944.29	- . - . - .

Equipment: GMS2200
Temperature(°C): 25

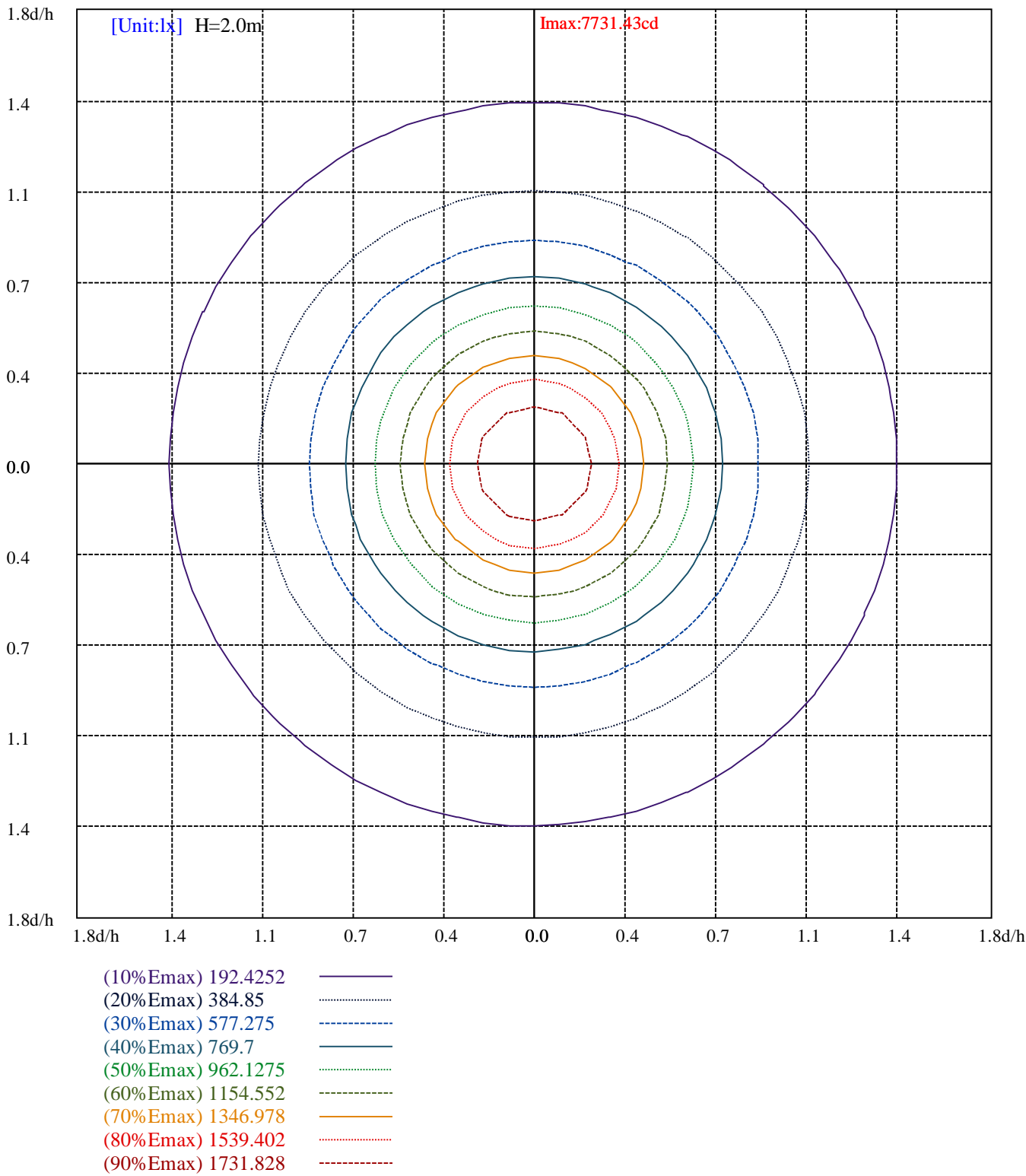
Date:
Humidity(%): 60%

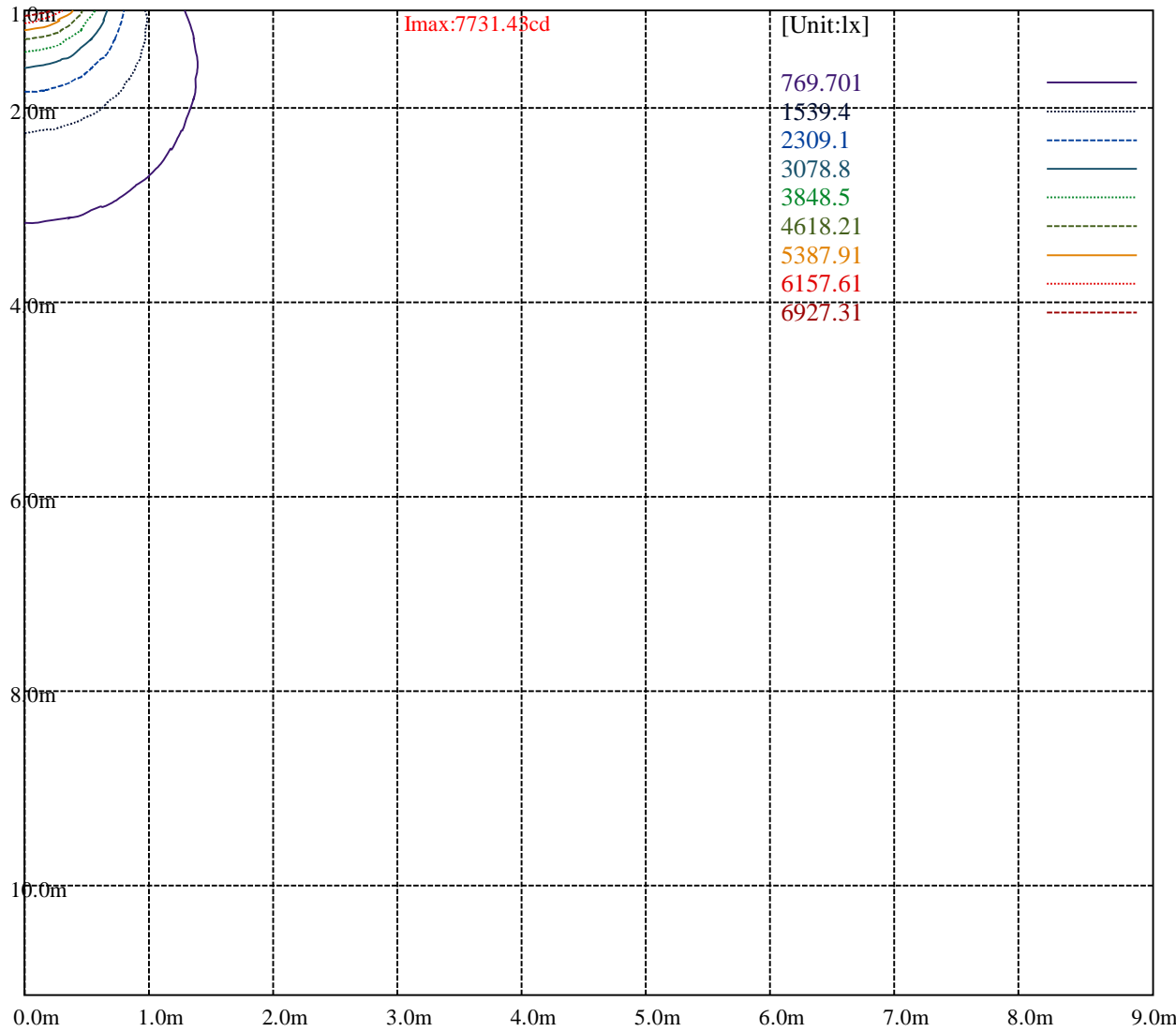
Operator:
Distance(m): 13.72



Imax:7731.43cd

(10% Imax)	773.079	—
(20% Imax)	1546.16	—
(30% Imax)	2319.24	—
(40% Imax)	3092.32	—
(50% Imax)	3865.4	—
(60% Imax)	4638.48	—
(70% Imax)	5411.56	—
(80% Imax)	6184.64	—
(90% Imax)	6957.71	—



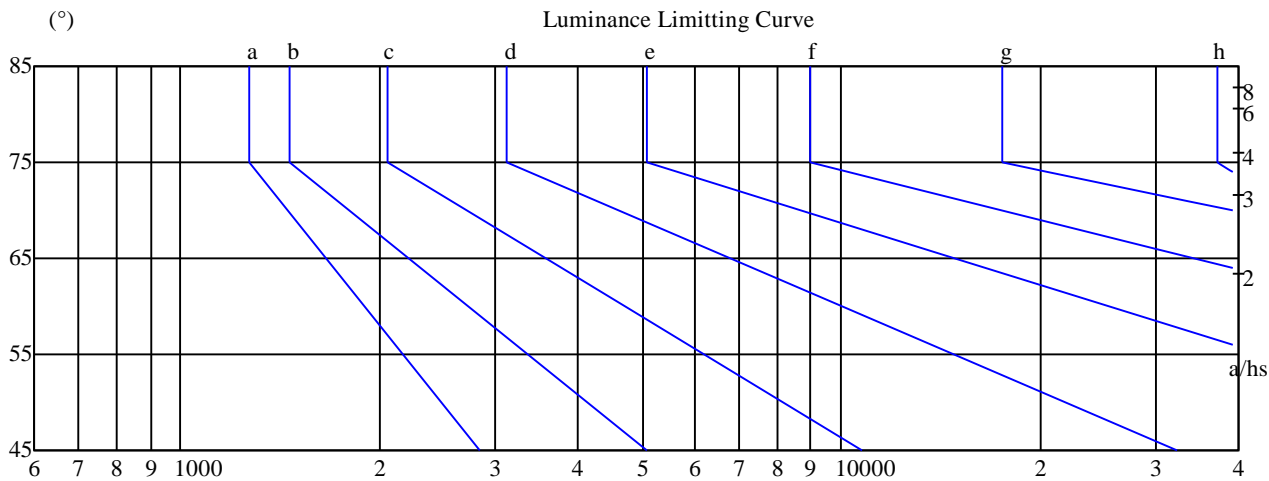


Luminance Table

	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

Glare Table

Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h



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Intensity data(cd)										Page: 10 Total:16	
C/ (°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0		
0.0	7697.01	7683.57	7668.72	7673.23	7649.78	7627.32	7630.94	7626.51	7603.57		
22.5	7697.01	7695.07	7697.66	7712.99	7685.87	7675.16	7645.98	7647.96	7622.89		
45.0	7697.01	7699.17	7663.19	7673.20	7672.09	7657.49	7643.14	7632.25	7590.05		
67.5	7697.01	7687.55	7691.55	7698.15	7682.01	7652.74	7652.98	7629.50	7597.70		
90.0	7697.01	7691.95	7687.89	7666.93	7664.08	7637.61	7650.74	7646.96	7608.00		
112.5	7697.01	7684.80	7643.07	7687.84	7659.43	7655.23	7633.51	7610.18	7592.50		
135.0	7697.01	7710.67	7695.71	7716.15	7693.34	7655.58	7657.02	7651.01	7633.01		
157.5	7697.01	7702.05	7703.81	7700.26	7702.92	7663.69	7662.51	7651.50	7598.00		
180.0	7697.01	7681.90	7692.81	7676.84	7666.75	7663.71	7630.75	7623.54	7596.60		
202.5	7697.01	7731.43	7703.39	7715.99	7716.29	7673.26	7656.32	7652.39	7622.62		
225.0	7697.01	7702.81	7708.09	7681.03	7657.96	7624.01	7637.00	7603.52	7596.82		
247.5	7697.01	7698.40	7686.79	7686.20	7685.45	7663.69	7660.98	7647.15	7616.96		
270.0	7697.01	7683.97	7707.82	7702.52	7663.72	7674.54	7665.19	7655.34	7624.52		
292.5	7697.01	7676.84	7682.66	7679.24	7664.41	7659.00	7644.08	7622.63	7604.40		
315.0	7697.01	7720.32	7709.59	7692.74	7686.84	7698.97	7663.69	7657.50	7630.23		
337.5	7697.01	7710.28	7700.25	7692.04	7700.38	7685.36	7668.42	7641.69	7611.91		
360.0	7697.01	7683.57	7668.72	7673.23	7649.78	7627.32	7630.94	7626.51	7603.57		
C/ (°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0		
0.0	7572.42	7546.96	7510.32	7503.26	7451.37	7423.25	7372.54	7335.10	7283.64		
22.5	7577.63	7573.81	7526.57	7485.62	7455.51	7421.50	7386.49	7337.82	7293.38		
45.0	7570.27	7549.18	7533.89	7476.15	7457.70	7409.46	7351.43	7324.62	7266.26		
67.5	7594.77	7541.62	7540.28	7537.03	7467.84	7421.07	7391.91	7332.37	7281.85		
90.0	7598.82	7552.17	7525.17	7495.35	7485.19	7421.43	7369.49	7320.59	7296.44		
112.5	7560.84	7544.21	7521.12	7484.73	7466.22	7431.56	7370.74	7313.67	7293.85		
135.0	7607.72	7592.94	7547.55	7531.57	7488.38	7444.42	7417.59	7353.58	7321.28		
157.5	7610.74	7567.94	7528.51	7517.64	7482.00	7423.18	7383.89	7354.93	7324.09		
180.0	7594.08	7555.82	7515.74	7502.08	7470.00	7437.21	7376.88	7340.38	7261.92		
202.5	7622.17	7563.27	7551.44	7513.53	7472.13	7441.45	7402.57	7353.05	7325.53		
225.0	7594.42	7551.09	7498.97	7516.42	7464.34	7423.45	7396.09	7344.46	7299.93		
247.5	7602.72	7576.72	7561.20	7524.84	7470.21	7449.23	7414.69	7372.04	7349.40		
270.0	7594.62	7581.71	7542.49	7509.80	7468.37	7445.28	7411.59	7347.11	7300.36		
292.5	7582.53	7554.00	7526.92	7506.69	7450.48	7406.98	7392.28	7354.01	7307.82		
315.0	7614.66	7574.24	7553.49	7524.77	7510.48	7460.63	7407.47	7376.68	7334.93		
337.5	7594.07	7580.71	7547.87	7504.45	7474.21	7434.44	7399.93	7364.21	7317.83		
360.0	7572.42	7546.96	7510.32	7503.26	7451.37	7423.25	7372.54	7335.10	7283.64		
C/ (°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0		
0.0	7240.19	7191.17	7130.24	7076.63	7020.12	6964.27	6900.71	6824.97	6750.10		
22.5	7239.84	7179.76	7142.77	7082.80	7024.80	6965.51	6891.93	6826.33	6763.34		
45.0	7197.75	7153.38	7091.17	7067.09	7020.69	6947.74	6893.94	6832.27	6748.91		
67.5	7231.66	7172.30	7119.04	7066.11	7025.68	6949.08	6885.75	6829.23	6737.36		
90.0	7225.12	7194.55	7126.18	7087.12	7028.91	6955.77	6888.97	6816.62	6755.51		
112.5	7248.98	7190.22	7140.64	7071.36	7028.80	6958.83	6884.64	6820.42	6759.70		
135.0	7271.51	7202.41	7161.82	7111.94	7052.96	6987.27	6930.71	6857.47	6798.71		
157.5	7260.44	7237.94	7163.87	7109.81	7052.95	6996.51	6919.23	6858.36	6790.19		
180.0	7239.16	7211.81	7160.90	7091.32	7039.83	6965.63	6912.88	6842.90	6763.44		
202.5	7280.01	7235.53	7172.63	7111.04	7039.50	6988.12	6919.55	6875.72	6810.66		
225.0	7239.24	7206.78	7142.39	7117.21	7065.08	6975.00	6917.95	6860.64	6795.38		
247.5	7281.23	7221.77	7159.86	7114.48	7056.64	6995.26	6923.07	6862.58	6794.57		
270.0	7266.29	7196.42	7149.01	7093.60	7057.46	7009.26	6906.71	6856.37	6789.39		
292.5	7256.24	7199.69	7135.13	7076.54	7032.17	6968.85	6912.18	6837.43	6770.72		
315.0	7290.91	7234.98	7176.67	7119.55	7068.77	6995.12	6935.95	6874.40	6791.92		
337.5	7271.20	7206.72	7147.44	7107.21	7048.90	6979.71	6911.11	6863.54	6764.69		
360.0	7240.19	7191.17	7130.24	7076.63	7020.12	6964.27	6900.71	6824.97	6750.10		

Equipment: GMS2200
Temperature(°C): 25

Date:
Humidity(%): 60%

Operator:
Distance(m): 13.72

Intensity data(cd)

Page: 11 Total:16

C/ (°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	6661.77	6605.93	6516.60	6449.37	6362.92	6287.90	6209.51	6124.65	6031.97
22.5	6711.61	6616.45	6540.70	6458.81	6380.73	6298.88	6206.03	6120.83	6041.91
45.0	6671.24	6586.42	6512.39	6446.75	6359.87	6288.62	6209.11	6116.53	6025.03
67.5	6690.48	6611.17	6536.89	6463.91	6367.60	6286.17	6202.32	6119.56	6033.19
90.0	6700.44	6626.12	6557.49	6475.19	6365.51	6293.79	6221.68	6131.60	6050.08
112.5	6685.88	6611.54	6534.91	6447.60	6386.32	6292.84	6221.91	6127.01	6048.24
135.0	6720.32	6657.29	6576.56	6494.08	6418.33	6332.63	6258.09	6178.88	6078.69
157.5	6708.24	6645.79	6570.68	6503.72	6418.12	6333.79	6242.04	6176.07	6080.01
180.0	6702.88	6623.37	6560.58	6488.31	6402.27	6319.48	6239.18	6165.87	6068.45
202.5	6722.30	6661.47	6585.15	6517.33	6436.38	6357.12	6265.09	6190.13	6098.87
225.0	6714.20	6639.03	6559.73	6482.60	6409.76	6343.71	6251.58	6165.16	6075.01
247.5	6728.89	6647.39	6585.25	6500.63	6451.44	6343.26	6263.03	6183.12	6104.26
270.0	6721.62	6634.68	6554.11	6492.69	6418.25	6333.67	6261.54	6171.91	6082.54
292.5	6697.93	6630.48	6545.51	6475.45	6406.86	6314.13	6214.03	6150.93	6047.96
315.0	6718.99	6661.10	6560.48	6497.79	6412.59	6327.00	6248.95	6169.35	6068.42
337.5	6699.27	6628.94	6571.36	6491.76	6404.28	6316.01	6238.64	6150.46	6058.07
360.0	6661.77	6605.93	6516.60	6449.37	6362.92	6287.90	6209.51	6124.65	6031.97

C/ (°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	5949.18	5855.65	5770.35	5684.32	5583.10	5474.89	5385.51	5291.31	5186.99
22.5	5954.26	5860.82	5776.52	5671.88	5576.87	5495.97	5382.80	5295.66	5195.76
45.0	5925.49	5836.20	5735.78	5657.90	5564.60	5463.26	5360.26	5265.33	5178.80
67.5	5939.08	5846.46	5754.30	5673.91	5563.36	5469.43	5379.29	5277.09	5178.50
90.0	5970.85	5870.09	5774.78	5692.10	5593.49	5492.84	5415.26	5306.42	5201.21
112.5	5960.65	5873.41	5775.92	5690.93	5600.95	5498.61	5411.29	5307.82	5221.59
135.0	6001.71	5917.43	5818.61	5730.04	5634.70	5539.86	5442.69	5354.93	5242.50
157.5	6011.15	5905.61	5824.16	5728.99	5634.42	5528.44	5434.83	5354.89	5256.55
180.0	5995.50	5897.82	5809.88	5720.56	5626.57	5524.87	5444.33	5348.54	5236.96
202.5	6009.29	5919.05	5837.30	5731.67	5656.29	5544.26	5447.96	5360.47	5262.43
225.0	5986.25	5896.03	5807.93	5731.59	5641.62	5533.16	5447.83	5359.13	5247.65
247.5	6007.47	5921.57	5823.78	5735.91	5654.23	5547.16	5451.22	5348.85	5251.25
270.0	5997.35	5906.03	5822.70	5725.89	5623.75	5526.54	5436.99	5340.19	5244.83
292.5	5969.51	5884.65	5788.46	5692.58	5598.84	5508.29	5423.34	5312.08	5227.26
315.0	5986.84	5891.94	5800.54	5707.92	5619.49	5524.59	5435.24	5327.52	5230.65
337.5	5967.32	5877.61	5795.72	5693.61	5598.11	5506.13	5406.28	5308.26	5210.35
360.0	5949.18	5855.65	5770.35	5684.32	5583.10	5474.89	5385.51	5291.31	5186.99

C/ (°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	5088.04	4994.87	4889.68	4780.56	4681.66	4579.93	4476.56	4376.57	4259.87
22.5	5094.31	4991.14	4883.12	4788.86	4673.90	4578.56	4472.10	4380.79	4261.86
45.0	5076.61	4985.01	4881.61	4775.09	4673.39	4569.58	4466.63	4361.17	4252.85
67.5	5078.58	4979.08	4884.89	4790.23	4691.35	4575.63	4474.50	4367.88	4266.74
90.0	5110.77	5012.72	4901.41	4812.56	4706.86	4601.46	4487.83	4378.95	4273.98
112.5	5116.95	5016.03	4898.50	4809.17	4705.21	4600.99	4488.70	4390.48	4282.05
135.0	5148.16	5040.14	4941.59	4836.69	4742.33	4631.02	4525.54	4418.04	4310.42
157.5	5153.53	5044.89	4932.44	4843.62	4747.47	4642.40	4530.84	4431.19	4323.25
180.0	5129.00	5026.53	4928.57	4838.26	4723.06	4629.61	4531.26	4422.32	4315.14
202.5	5154.46	5054.92	4957.39	4853.74	4756.66	4641.91	4549.46	4433.35	4329.94
225.0	5155.94	5052.27	4949.81	4851.24	4744.45	4643.30	4530.68	4431.15	4324.96
247.5	5157.52	5068.22	4966.04	4851.02	4753.21	4646.81	4543.46	4429.36	4328.83
270.0	5152.30	5040.51	4938.51	4833.90	4734.29	4625.97	4525.34	4421.57	4313.84
292.5	5127.16	5012.95	4925.39	4824.21	4723.92	4623.27	4504.34	4417.04	4315.29
315.0	5123.27	5035.95	4931.55	4825.58	4721.55	4617.38	4518.00	4416.64	4300.69
337.5	5119.67	5010.80	4907.80	4807.39	4703.41	4603.18	4497.84	4392.25	4287.13
360.0	5088.04	4994.87	4889.68	4780.56	4681.66	4579.93	4476.56	4376.57	4259.87

Intensity data(cd)

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C/ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	4153.06	4050.04	3948.18	3845.28	3741.11	3633.06	3525.28	3418.69	3319.46
22.5	4158.33	4049.71	3948.44	3834.04	3741.12	3638.31	3530.00	3418.70	3312.36
45.0	4150.84	4037.09	3929.43	3835.42	3725.26	3619.72	3515.26	3417.56	3308.98
67.5	4158.21	4055.79	3943.26	3841.63	3731.08	3637.02	3529.13	3418.16	3310.14
90.0	4170.11	4068.19	3953.79	3848.74	3745.64	3648.44	3540.86	3439.47	3337.57
112.5	4184.00	4064.57	3962.65	3855.98	3748.20	3650.15	3544.76	3440.80	3346.39
135.0	4198.32	4096.61	3996.67	3887.95	3778.94	3675.41	3576.10	3475.89	3370.50
157.5	4219.37	4114.29	4005.00	3892.95	3789.93	3681.02	3584.18	3482.05	3374.05
180.0	4205.95	4107.42	4000.87	3894.28	3788.93	3683.08	3579.97	3474.57	3367.12
202.5	4226.01	4107.59	4008.82	3907.80	3797.71	3695.49	3595.86	3487.39	3388.27
225.0	4211.54	4113.81	4009.18	3901.74	3795.68	3691.20	3584.45	3481.89	3377.39
247.5	4224.99	4121.73	4013.85	3909.67	3804.08	3698.15	3595.99	3495.01	3386.22
270.0	4209.39	4102.58	3996.63	3895.86	3791.23	3681.27	3571.47	3468.11	3371.69
292.5	4202.48	4090.83	3975.78	3869.61	3772.84	3668.53	3559.51	3463.07	3363.92
315.0	4199.79	4090.99	3983.72	3883.00	3777.97	3671.94	3567.16	3465.62	3361.33
337.5	4176.29	4069.98	3965.19	3859.63	3753.70	3648.62	3542.47	3440.13	3334.74
360.0	4153.06	4050.04	3948.18	3845.28	3741.11	3633.06	3525.28	3418.69	3319.46
C/ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	3211.56	3106.46	3005.83	2898.69	2794.81	2695.18	2592.34	2490.91	2394.77
22.5	3208.09	3106.35	2997.15	2900.21	2797.14	2690.54	2589.01	2494.78	2396.68
45.0	3206.21	3103.36	3005.04	2892.77	2792.22	2688.45	2586.95	2481.20	2389.46
67.5	3213.72	3109.34	3003.77	2902.12	2792.67	2697.12	2589.79	2491.84	2391.45
90.0	3235.83	3130.82	3033.46	2927.19	2829.08	2727.42	2628.31	2531.98	2433.32
112.5	3234.49	3136.33	3036.77	2934.82	2838.06	2737.79	2641.03	2542.29	2443.38
135.0	3264.60	3161.00	3065.04	2959.32	2860.60	2762.50	2665.81	2562.91	2460.23
157.5	3272.15	3172.13	3073.99	2973.70	2867.48	2765.54	2665.77	2568.33	2470.50
180.0	3267.79	3166.50	3064.79	2968.66	2864.98	2764.48	2667.31	2567.98	2462.78
202.5	3285.18	3182.55	3077.97	2975.38	2876.55	2770.06	2678.96	2573.83	2479.87
225.0	3271.61	3171.39	3067.96	2971.54	2870.48	2770.29	2673.91	2573.46	2474.73
247.5	3286.21	3177.14	3079.35	2978.89	2877.09	2776.87	2672.93	2571.85	2479.51
270.0	3261.44	3158.40	3055.50	2948.94	2847.75	2747.04	2643.64	2543.43	2446.74
292.5	3255.39	3150.41	3045.43	2939.72	2838.76	2731.77	2634.57	2531.72	2437.53
315.0	3253.36	3145.23	3038.59	2934.10	2834.79	2727.48	2624.46	2525.14	2430.86
337.5	3233.94	3128.88	3018.55	2918.60	2815.57	2714.19	2615.78	2516.32	2416.75
360.0	3211.56	3106.46	3005.83	2898.69	2794.81	2695.18	2592.34	2490.91	2394.77
C/ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	2297.78	2197.81	2104.83	2010.76	1920.38	1830.09	1739.54	1648.85	1560.82
22.5	2301.57	2200.62	2107.98	2013.64	1918.61	1828.54	1738.56	1651.41	1563.36
45.0	2295.52	2200.99	2105.75	2013.40	1919.53	1830.06	1740.64	1650.28	1563.63
67.5	2298.23	2200.84	2107.77	2013.26	1922.72	1831.99	1740.03	1652.97	1565.69
90.0	2337.02	2235.31	2142.47	2050.66	1959.90	1866.03	1776.79	1686.61	1596.43
112.5	2346.51	2251.50	2153.93	2058.96	1966.41	1872.51	1777.35	1689.71	1602.07
135.0	2369.68	2268.58	2166.89	2076.80	1978.61	1885.28	1793.37	1703.62	1613.88
157.5	2373.70	2273.43	2179.19	2081.70	1991.03	1898.25	1799.35	1711.12	1622.89
180.0	2370.13	2273.51	2179.33	2084.71	1986.61	1886.93	1802.01	1709.55	1617.10
202.5	2378.98	2283.50	2185.46	2091.05	1996.15	1898.69	1808.21	1716.84	1625.47
225.0	2378.68	2280.97	2184.88	2092.62	1996.82	1903.06	1808.53	1718.22	1627.92
247.5	2387.02	2281.70	2185.63	2085.54	1993.69	1898.33	1806.55	1715.32	1624.09
270.0	2346.51	2251.51	2160.48	2062.42	1971.15	1877.23	1786.68	1699.91	1609.58
292.5	2335.35	2240.22	2146.10	2052.75	1960.58	1871.23	1782.55	1688.44	1598.36
315.0	2328.16	2230.81	2136.74	2043.30	1947.64	1854.95	1763.18	1674.56	1584.82
337.5	2316.15	2219.52	2129.22	2031.61	1938.74	1847.57	1759.47	1668.92	1579.15
360.0	2297.78	2197.81	2104.83	2010.76	1920.38	1830.09	1739.54	1648.85	1560.82

C/ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	1472.02	1382.72	1287.25	1188.62	1066.49	938.00	806.08	674.07	542.06
22.5	1472.31	1381.99	1286.58	1188.80	1069.50	937.00	805.79	674.62	543.44
45.0	1476.98	1387.88	1289.38	1192.45	1073.83	944.23	812.56	680.86	549.17
67.5	1470.88	1385.92	1295.24	1195.50	1078.97	947.09	815.90	684.72	553.54
90.0	1506.27	1417.30	1325.02	1227.87	1116.07	986.48	849.49	717.51	585.86
112.5	1514.39	1425.42	1334.41	1237.03	1128.05	997.11	861.50	728.70	596.60
135.0	1524.13	1434.43	1343.97	1246.32	1136.53	1006.74	870.06	734.15	602.68
157.5	1534.63	1444.86	1350.71	1252.05	1143.31	1013.25	877.76	743.86	611.35
180.0	1524.67	1434.57	1343.26	1248.03	1134.61	1006.06	870.52	735.40	605.06
202.5	1534.12	1445.16	1351.73	1252.94	1139.40	1010.36	873.01	737.20	603.30
225.0	1537.60	1446.77	1352.75	1251.29	1137.47	1006.18	866.26	730.09	598.93
247.5	1532.88	1442.62	1349.33	1247.37	1129.73	994.62	855.10	719.47	585.14
270.0	1523.76	1432.14	1329.67	1227.37	1110.47	972.36	831.92	699.30	566.72
292.5	1507.45	1413.79	1320.43	1217.24	1095.18	963.48	829.46	695.40	561.35
315.0	1495.17	1403.96	1311.93	1208.04	1083.93	951.21	818.31	685.41	552.51
337.5	1488.74	1395.56	1301.18	1197.55	1078.95	949.34	816.66	683.98	551.30
360.0	1472.02	1382.72	1287.25	1188.62	1066.49	938.00	806.08	674.07	542.06

C/ (°)	90.0	91.0	92.0	93.0	94.0	95.0	96.0	97.0	98.0
0.0	440.93	388.36	337.30	287.98	240.48	195.88	154.56	118.53	85.74
22.5	439.09	385.64	336.13	286.43	239.28	194.52	153.41	116.76	76.43
45.0	442.94	389.40	339.39	290.52	241.51	195.72	154.28	117.94	84.14
67.5	443.58	389.66	339.18	291.92	244.67	200.16	159.10	122.62	89.05
90.0	470.15	408.82	355.79	305.15	257.91	213.56	171.05	133.35	100.09
112.5	480.02	416.02	362.64	311.73	263.89	219.24	176.95	138.74	104.54
135.0	484.58	417.61	365.95	314.68	267.07	222.10	179.99	141.94	107.78
157.5	492.20	426.06	372.00	319.39	270.77	224.72	180.44	141.17	104.18
180.0	485.90	420.18	367.51	317.05	268.71	223.32	180.71	141.98	107.80
202.5	485.32	419.76	367.56	316.87	268.42	223.66	180.28	142.17	106.02
225.0	480.82	419.94	366.45	316.27	268.06	222.11	179.63	140.31	105.89
247.5	469.64	411.12	358.39	309.18	261.78	217.88	176.81	139.92	106.93
270.0	460.10	405.75	355.15	304.90	256.47	210.58	167.98	129.41	94.93
292.5	455.98	401.78	350.70	302.64	253.05	206.97	165.37	126.77	92.99
315.0	446.95	395.19	345.69	296.50	247.80	203.02	161.82	125.06	91.49
337.5	449.53	395.94	344.47	295.02	246.05	200.67	158.32	120.72	75.63
360.0	440.93	388.36	337.30	287.98	240.48	195.88	154.56	118.53	85.74

C/ (°)	99.0	100.0	101.0	102.0	103.0	104.0	105.0	106.0	107.0
0.0	53.03	6.17	4.68	4.68	4.68	4.73	4.89	5.05	5.03
22.5	9.36	4.64	4.56	4.56	4.69	4.72	4.69	4.72	4.82
45.0	56.30	34.46	18.34	7.48	4.44	4.46	4.52	4.68	4.68
67.5	60.92	37.43	19.43	7.32	4.45	4.34	4.33	4.36	4.55
90.0	71.22	46.90	27.78	13.77	6.73	6.49	6.57	6.71	6.92
112.5	75.29	49.87	29.85	14.59	7.06	6.64	6.78	6.94	7.12
135.0	77.73	51.40	30.39	14.48	6.86	6.62	6.92	7.25	7.52
157.5	43.68	6.56	6.64	6.80	7.50	7.10	7.26	7.46	7.62
180.0	76.43	21.52	6.95	7.06	7.17	7.33	7.47	7.68	7.87
202.5	50.52	6.29	6.46	6.68	7.00	7.05	7.19	7.40	7.59
225.0	75.76	50.28	30.45	15.45	7.21	6.63	6.90	7.23	7.50
247.5	76.62	50.88	29.70	14.27	6.88	6.64	6.88	7.13	7.40
270.0	65.58	42.36	23.95	10.76	4.73	4.49	4.41	4.41	4.41
292.5	63.35	40.43	22.15	9.30	4.27	4.21	4.32	4.61	4.75
315.0	62.94	39.97	20.91	8.57	4.37	4.31	4.42	4.72	4.77
337.5	12.25	4.25	4.17	6.31	4.68	4.66	4.74	4.74	4.74
360.0	53.03	6.17	4.68	4.68	4.68	4.73	4.89	5.05	5.03

Intensity data(cd)									Page: 14 Total:16		
C/ (°)	108.0	109.0	110.0	111.0	112.0	113.0	114.0	115.0	116.0		
0.0	5.03	5.14	5.50	5.65	5.78	5.92	5.92	6.05	6.22		
22.5	5.07	5.07	5.18	5.48	5.66	5.83	5.88	5.96	5.94		
45.0	4.68	4.73	5.05	5.35	5.54	5.70	5.84	5.92	6.00		
67.5	4.68	4.71	4.79	5.06	5.09	5.20	5.55	5.53	5.63		
90.0	7.27	7.74	8.16	8.58	8.99	9.36	9.69	10.00	10.22		
112.5	7.35	7.64	7.91	8.21	8.53	8.83	9.18	9.48	9.72		
135.0	7.73	7.93	8.11	8.44	8.79	9.15	9.55	9.80	10.07		
157.5	7.81	7.83	7.83	7.92	8.36	8.62	8.62	8.62	8.62		
180.0	8.00	8.06	8.20	8.36	8.68	8.87	9.09	9.33	9.38		
202.5	7.81	7.97	8.14	8.35	8.57	8.51	8.54	8.48	8.38		
225.0	7.77	8.06	8.36	8.72	9.09	9.39	9.68	9.96	10.18		
247.5	7.67	8.00	8.37	8.70	9.06	9.43	9.76	10.08	10.41		
270.0	4.41	4.73	4.78	5.24	5.59	5.92	6.13	6.43	6.51		
292.5	5.01	5.18	5.47	5.53	5.72	5.93	6.09	6.34	6.71		
315.0	4.98	5.07	5.50	5.66	5.94	6.28	6.40	6.43	6.51		
337.5	4.98	5.09	5.26	5.60	5.58	5.74	5.77	5.88	5.91		
360.0	5.03	5.14	5.50	5.65	5.78	5.92	5.92	6.05	6.22		
C/ (°)	117.0	118.0	119.0	120.0	121.0	122.0	123.0	124.0	125.0		
0.0	6.24	6.00	5.81	5.81	5.73	5.73	6.08	6.53	6.78		
22.5	5.94	5.94	5.96	5.96	6.12	6.37	6.62	6.88	7.21		
45.0	6.16	6.35	6.49	6.71	6.81	6.98	7.29	7.28	7.38		
67.5	5.74	5.96	5.99	6.07	6.31	6.47	6.53	6.80	7.14		
90.0	10.57	10.93	11.22	11.49	11.79	12.06	12.30	12.60	12.96		
112.5	9.96	10.17	10.34	10.58	10.71	10.93	11.18	11.53	11.99		
135.0	10.28	10.39	10.47	10.58	10.69	10.85	11.10	11.43	11.64		
157.5	8.62	8.65	8.67	8.75	8.89	9.03	9.19	9.36	9.74		
180.0	9.34	8.97	8.40	8.16	8.11	8.14	8.33	8.83	9.46		
202.5	8.16	8.16	8.16	8.19	8.44	8.77	9.07	9.33	9.69		
225.0	10.41	10.58	10.74	10.87	10.93	11.01	11.15	11.41	11.69		
247.5	10.76	11.03	11.33	11.57	11.79	11.92	12.11	12.36	12.68		
270.0	6.78	7.27	7.32	7.48	7.64	7.78	8.08	8.08	8.13		
292.5	6.88	7.17	7.18	7.18	7.28	7.37	7.58	7.72	8.04		
315.0	6.56	6.80	6.83	6.97	7.24	7.35	7.35	7.59	7.83		
337.5	5.94	5.99	6.02	6.07	6.07	6.37	6.53	6.77	7.25		
360.0	6.24	6.00	5.81	5.81	5.73	5.73	6.08	6.53	6.78		
C/ (°)	126.0	127.0	128.0	129.0	130.0	131.0	132.0	133.0	134.0		
0.0	6.92	7.19	7.46	7.75	8.32	9.12	9.77	9.95	10.16		
22.5	7.45	7.64	7.80	8.26	8.81	9.53	9.94	10.08	10.27		
45.0	7.60	7.68	7.95	8.17	8.61	9.38	9.84	9.82	9.82		
67.5	7.39	7.69	8.07	8.45	8.96	9.37	9.64	9.89	9.89		
90.0	13.30	13.52	13.81	14.23	14.71	15.34	16.22	16.73	16.78		
112.5	12.44	12.82	13.18	13.55	13.96	14.39	14.93	15.36	15.63		
135.0	11.86	12.02	12.10	12.10	12.18	12.41	12.86	12.77	12.56		
157.5	10.45	11.21	11.82	12.20	12.66	13.32	14.07	14.04	14.04		
180.0	9.77	10.21	10.74	11.43	12.22	12.99	13.79	14.14	14.05		
202.5	10.18	10.97	11.69	12.48	12.96	13.62	14.13	14.15	13.99		
225.0	11.98	12.14	12.20	12.23	12.45	12.98	13.03	12.98	12.98		
247.5	13.04	13.39	13.74	14.12	14.47	14.82	14.96	14.98	15.02		
270.0	8.32	8.67	9.15	9.80	10.59	11.36	12.10	12.40	12.46		
292.5	8.33	8.69	9.08	9.52	9.88	10.30	10.47	10.63	10.61		
315.0	8.08	8.33	8.46	8.57	9.10	9.79	10.01	10.09	10.27		
337.5	7.42	7.87	8.31	8.92	9.56	10.27	10.40	10.41	10.43		
360.0	6.92	7.19	7.46	7.75	8.32	9.12	9.77	9.95	10.16		

Intensity data(cd)										Page: 15 Total:16	
C/ (°)	135.0	136.0	137.0	138.0	139.0	140.0	141.0	142.0	143.0		
0.0	10.22	10.30	10.27	10.27	10.27	10.43	10.68	10.92	11.19		
22.5	10.43	10.62	10.73	10.98	11.11	11.17	11.20	11.17	11.68		
45.0	9.82	9.82	9.87	9.95	10.22	10.41	10.76	11.03	11.09		
67.5	9.89	9.97	10.18	10.24	10.43	10.73	10.78	11.07	11.40		
90.0	16.81	16.78	16.81	16.89	16.98	17.16	17.41	17.58	17.87		
112.5	15.76	15.95	16.11	16.27	16.43	16.49	16.54	16.65	16.73		
135.0	12.56	12.56	12.64	12.81	13.05	13.27	13.57	13.89	14.19		
157.5	14.04	14.04	14.04	14.04	14.01	14.12	14.32	14.56	15.00		
180.0	13.65	13.24	12.69	12.21	11.62	11.54	11.58	11.81	12.47		
202.5	13.83	13.80	13.72	13.72	13.72	13.75	13.99	14.21	14.43		
225.0	13.01	13.06	13.26	13.50	13.77	14.12	14.44	14.88	15.13		
247.5	15.17	15.28	15.42	15.69	15.77	15.74	15.77	15.88	15.85		
270.0	12.43	12.38	12.40	12.41	12.48	12.62	12.91	13.11	13.19		
292.5	10.61	10.63	10.68	10.71	11.01	11.17	11.30	11.49	11.60		
315.0	10.28	10.28	10.33	10.47	10.69	10.77	11.04	11.54	11.96		
337.5	10.35	10.35	10.33	10.33	10.43	10.41	10.76	11.08	11.85		
360.0	10.22	10.30	10.27	10.27	10.27	10.43	10.68	10.92	11.19		
C/ (°)	144.0	145.0	146.0	147.0	148.0	149.0	150.0	151.0	152.0		
0.0	12.12	13.10	13.96	14.16	14.19	14.17	14.19	14.01	14.03		
22.5	12.68	13.61	14.04	14.44	14.61	14.72	14.83	14.99	15.31		
45.0	11.36	11.74	12.10	12.38	12.81	13.36	14.10	14.54	14.97		
67.5	11.86	12.40	12.83	13.35	13.86	14.38	14.76	14.87	14.93		
90.0	17.97	17.97	18.00	18.03	18.00	18.00	17.97	17.76	17.76		
112.5	16.81	16.84	16.81	16.81	16.81	16.84	16.68	16.65	16.40		
135.0	14.51	14.78	14.87	15.00	15.17	15.41	15.66	16.06	16.60		
157.5	15.67	16.10	16.21	16.24	16.49	16.92	17.30	17.77	18.31		
180.0	13.51	14.28	15.48	16.28	16.52	16.74	17.09	17.61	17.98		
202.5	14.73	15.27	15.67	15.81	16.02	16.63	17.13	17.87	18.11		
225.0	15.44	15.60	15.63	15.72	15.92	16.55	17.33	18.15	18.72		
247.5	15.88	15.88	16.02	16.18	16.29	16.49	16.99	17.58	17.56		
270.0	13.19	13.19	13.22	13.22	13.48	13.72	14.12	14.46	14.75		
292.5	11.66	11.90	12.38	12.97	13.54	14.00	14.48	14.83	15.05		
315.0	12.46	12.61	12.85	12.86	12.88	12.94	13.29	13.74	14.52		
337.5	12.43	12.81	13.30	13.65	13.95	14.22	14.50	14.58	14.58		
360.0	12.12	13.10	13.96	14.16	14.19	14.17	14.19	14.01	14.03		
C/ (°)	153.0	154.0	155.0	156.0	157.0	158.0	159.0	160.0	161.0		
0.0	13.64	13.02	12.48	12.12	12.01	11.98	12.00	12.16	12.19		
22.5	15.58	15.72	15.91	15.75	15.43	15.24	15.13	14.73	14.59		
45.0	15.43	15.95	16.28	16.69	16.66	16.47	16.10	15.77	15.31		
67.5	14.98	15.01	15.01	15.22	16.04	16.09	15.67	14.84	14.63		
90.0	17.76	17.76	17.76	17.76	18.11	18.27	18.52	18.91	18.54		
112.5	16.13	16.00	16.00	16.00	16.00	16.00	16.10	15.84	15.77		
135.0	16.96	17.22	17.53	17.88	18.00	19.15	19.06	18.49	18.17		
157.5	18.87	19.22	19.93	20.81	21.65	21.38	21.30	21.30	21.34		
180.0	18.03	18.01	18.00	17.48	16.87	16.87	16.84	16.84	16.85		
202.5	18.03	17.97	17.56	17.22	17.18	16.89	16.70	16.46	16.38		
225.0	19.49	20.07	20.68	21.37	21.58	21.55	20.95	20.58	19.71		
247.5	17.53	17.64	17.67	17.93	18.78	19.71	20.21	20.15	19.75		
270.0	14.94	14.95	14.58	13.98	13.11	12.66	12.76	13.66	13.70		
292.5	15.03	15.06	14.71	14.49	14.46	14.94	14.71	14.49	14.33		
315.0	15.45	16.07	16.68	16.79	16.82	16.39	15.77	15.19	14.92		
337.5	14.72	14.98	15.15	15.55	15.53	15.26	15.18	14.70	14.40		
360.0	13.64	13.02	12.48	12.12	12.01	11.98	12.00	12.16	12.19		

Intensity data(cd)										Page: 16 Total:16
C/ (°)	162.0	163.0	164.0	165.0	166.0	167.0	168.0	169.0	170.0	
0.0	12.19	12.19	11.90	11.47	11.36	11.68	12.21	12.77	13.40	
22.5	14.10	13.91	13.57	12.78	12.34	12.28	12.28	12.20	12.23	
45.0	14.91	14.71	14.18	13.20	12.71	12.53	12.52	12.55	12.66	
67.5	14.63	14.52	14.28	13.88	13.36	12.90	12.76	12.76	12.90	
90.0	18.53	18.18	17.75	17.35	16.59	15.97	15.62	15.51	15.13	
112.5	16.93	17.22	17.13	16.72	16.24	15.89	15.81	15.45	15.03	
135.0	17.68	17.20	17.00	16.59	15.84	15.20	14.67	14.26	13.91	
157.5	21.65	21.65	21.02	19.58	18.50	17.38	16.57	16.04	15.54	
180.0	16.95	16.93	17.08	16.89	16.24	16.05	15.51	15.07	14.54	
202.5	16.38	16.35	16.35	16.23	15.69	15.54	15.56	15.51	15.51	
225.0	19.01	19.01	18.97	18.22	17.97	17.21	16.79	16.51	15.79	
247.5	19.61	19.26	18.53	18.22	17.42	16.90	16.74	16.68	15.95	
270.0	14.61	14.83	14.60	13.98	13.25	12.92	12.65	12.52	12.51	
292.5	13.78	13.68	13.29	12.98	12.68	12.55	12.36	12.25	12.28	
315.0	14.42	13.97	13.94	13.51	13.01	12.91	12.88	12.88	12.88	
337.5	13.99	13.83	13.36	12.91	12.74	12.66	12.68	12.44	12.49	
360.0	12.19	12.19	11.90	11.47	11.36	11.68	12.21	12.77	13.40	
C/ (°)	171.0	172.0	173.0	174.0	175.0	176.0	177.0	178.0	179.0	
0.0	13.68	13.79	13.76	13.79	14.06	14.16	14.17	14.17	14.17	
22.5	12.31	12.42	12.47	12.31	12.84	13.31	13.47	13.69	13.72	
45.0	12.76	12.98	12.98	13.01	13.27	13.71	13.82	13.90	13.87	
67.5	12.87	12.92	12.74	12.65	12.71	12.92	12.98	12.98	12.98	
90.0	14.91	14.48	13.67	13.19	13.27	12.89	12.54	12.30	12.38	
112.5	14.91	14.39	13.65	13.28	13.22	12.94	12.55	12.38	12.31	
135.0	13.75	13.48	13.29	13.29	13.37	13.37	13.40	13.31	12.88	
157.5	14.98	14.62	14.12	13.88	13.86	14.20	14.17	13.87	13.33	
180.0	14.25	13.92	13.73	13.65	13.72	14.30	14.27	14.18	13.90	
202.5	15.50	15.35	15.08	15.08	15.08	15.07	14.96	14.52	13.88	
225.0	15.43	14.84	14.52	14.42	14.47	14.71	14.68	14.43	13.84	
247.5	15.63	15.05	14.65	14.25	14.22	14.25	14.14	13.95	13.71	
270.0	12.57	12.65	12.51	12.41	12.81	13.24	13.27	13.32	13.04	
292.5	12.44	12.36	12.15	12.06	12.06	12.33	12.73	12.87	12.87	
315.0	12.91	12.99	12.97	12.75	12.80	12.91	13.26	13.39	13.37	
337.5	12.82	12.93	12.95	13.01	13.70	13.87	13.98	14.25	14.26	
360.0	13.68	13.79	13.76	13.79	14.06	14.16	14.17	14.17	14.17	
C/ (°)	180.0									
0.0	14.18									
22.5	14.18									
45.0	14.18									
67.5	14.18									
90.0	14.18									
112.5	14.18									
135.0	14.18									
157.5	14.18									
180.0	14.18									
202.5	14.18									
225.0	14.18									
247.5	14.18									
270.0	14.18									
292.5	14.18									
315.0	14.18									
337.5	14.18									
360.0	14.18									