

LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P832450

Luminaire Tested: S123RDP-S1165D835-4F0-1E-UDD-G

Issue Date: 05/03/2024

Tested By:

Approved By:



NVLAP Lab Code: 200050-0

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Test Information

Test Method: LM-79-2019
 Report Number: P832450
 Test Lab: INNOVATION CENTER
 Issue Date: 05/03/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: NEO-RAY
 Catalog Number: S123RDP-S1165D835-4F0-1E-UDD-G
 Description: DEFINE 3 DIRECT PENDANT LED LUMINAIRE
 DOWNLIGHT 1165 LUMENS PER FOOT, GRAZE OPTIC

Light Source: -
 Ballast/Driver: -

Summary

Lumens per Lamp: N/A
 Luminaire Lumens: 4969.0 lumens
 Efficiency: N/A
 Efficacy: 117.7 lumens/watt
 Spacing Criteria (0/90/45): 0.55 / 1.17 / 0.8
 Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
 CIE Type: Direct

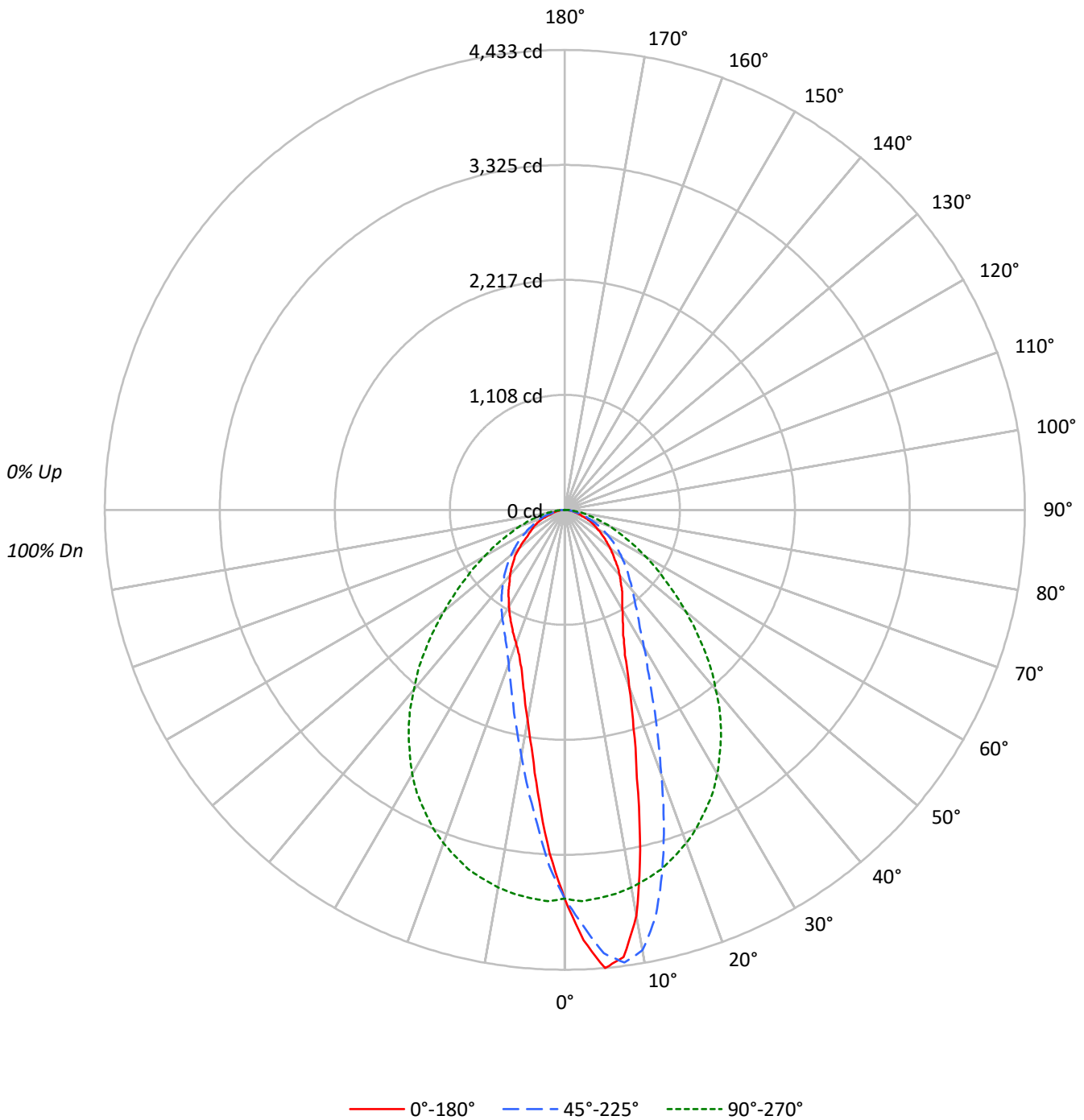
Input Watts (W): 42.2
 Input Voltage (V): 120
 Input Current (Ain): NR
 Voltage Rise (V): NR
 Power Factor: NR
 Total Harmonic Distortion (THDi): NR
 Frequency (hertz): 60
 Stabilization Time: NR
 Operation Time: NR
 Ambient Temperature (°C): NR
 Test Distance: 24 FT

Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	P3	10/30/2015	4/30/2016
Power Meter	IN0214	1/12/2016	1/12/2017
AC Power Source	IN0062	1/12/2016	1/12/2017
DC Power Supply	--	--	--
Room Thermometer	IN0145	1/13/2016	1/13/2017

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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20	
RC	80					70					50					30					10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	111	107	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67				
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59				
5	82	70	62	56	80	69	62	56	67	61	56	65	60	55	63	58	54	53				
6	76	64	56	51	74	63	56	50	62	55	50	60	54	50	59	53	49	47				
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	43				
8	67	55	47	42	65	54	47	42	53	46	41	52	46	41	51	45	41	39				
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36				
10	60	47	40	35	58	47	40	35	46	40	35	45	39	35	44	39	35	33				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	40341	40341	40341	40341	40341
5°	47900	46372	40595	32816	30467
10°	43399	47102	40392	26293	22556
15°	29881	40386	39965	21489	17842
20°	20787	31093	39163	18120	15683
25°	15841	23698	37996	16106	14454
30°	13789	18946	36535	14955	13389
35°	12661	15981	34467	13983	12418
40°	11552	14272	31760	13030	11529
45°	10432	13052	28841	12128	10644
50°	9470	12042	25396	11245	9547
55°	8565	11059	22088	10382	8190
60°	7675	10056	19186	9427	7741
65°	7083	8922	16514	8474	7317
70°	5756	7714	14411	7666	5948
75°	5049	6134	12206	6359	5240
80°	4575	5188	9998	5331	4953
85°	4174	4557	7595	4841	4557

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 80°
 Vertical Angle: 45°
 Luminance: 30431 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	341.6	6.9
10°-20°	790.5	15.9
20°-30°	906.9	18.3
30°-40°	893.9	18.0
40°-50°	788.3	15.9
50°-60°	606.5	12.2
60°-70°	398.7	8.0
70°-80°	193.6	3.9
80°-90°	48.8	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2039.0	41.0
0°-40°	2933.0	59.0
0°-60°	4327.8	87.1
0°-90°	4969.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4969.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3748	3748	3748	3748	3748	
5°	4433	4292	3757	3037	2820	405
15°	2681	3624	3586	1928	1601	757
25°	1334	1995	3199	1356	1217	630
35°	964	1216	2623	1064	945	601
45°	685	857	1895	797	699	532
55°	456	589	1177	553	436	409
65°	278	350	648	333	287	273
75°	121	148	294	153	126	131
85°	34	37	62	39	37	38
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3747.8	3747.8	3747.8	3747.8	3747.8	3747.8	3747.8	3747.8	3747.8	3747.8	3747.8
2.5°	4153.4	4140.4	4127.3	4123.5	4119.6	4107.3	4095.1	4067.4	4039.7	4011.3	3982.9
5°	4433.1	4434.6	4436.2	4432.3	4428.5	4412.4	4396.2	4362.4	4328.6	4291.7	4254.9
7.5°	4347.1	4371.6	4396.2	4400.8	4405.4	4417.7	4430.0	4422.3	4414.7	4400.8	4387.0
10°	3970.6	3969.0	3967.5	3995.2	4022.8	4105.0	4187.2	4229.5	4271.8	4309.4	4347.1
12.5°	3355.9	3358.2	3360.6	3451.2	3541.9	3619.5	3697.1	3804.6	3912.2	4028.2	4144.2
15°	2681.4	2719.0	2756.7	2837.3	2918.0	3034.8	3151.6	3296.0	3440.5	3624.1	3807.7
17.5°	2202.0	2218.1	2234.2	2311.8	2389.4	2500.1	2610.7	2774.3	2938.0	3174.6	3411.3
20°	1814.7	1829.3	1843.9	1900.0	1956.1	2062.1	2168.1	2324.1	2480.1	2714.4	2948.7
22.5°	1515.1	1543.5	1571.9	1609.6	1647.2	1724.1	1800.9	1959.9	2119.0	2332.6	2546.2
25°	1333.8	1346.8	1359.9	1392.2	1424.4	1498.2	1571.9	1677.2	1782.5	1995.3	2208.1
27.5°	1210.8	1214.7	1218.5	1242.3	1266.2	1313.8	1361.4	1459.0	1556.6	1731.8	1906.9
30°	1109.4	1116.3	1123.3	1141.7	1160.1	1194.7	1229.3	1298.4	1367.6	1524.3	1681.0
32.5°	1031.1	1034.9	1038.7	1054.1	1069.5	1094.8	1120.2	1174.7	1229.3	1349.1	1469.0
35°	963.5	964.2	965.0	976.5	988.0	1012.6	1037.2	1082.5	1127.9	1216.2	1304.6
37.5°	886.6	892.0	897.4	905.8	914.3	935.8	957.3	994.2	1031.1	1104.1	1177.0
40°	822.1	826.7	831.3	841.3	851.3	868.2	885.1	918.9	952.7	1015.7	1078.7
42.5°	757.5	760.6	763.7	773.7	783.7	804.4	825.2	852.0	878.9	931.2	983.4
45°	685.3	693.0	700.7	711.4	722.2	739.9	757.5	785.2	812.9	857.4	902.0
47.5°	625.4	629.2	633.1	642.3	651.5	673.0	694.5	719.1	743.7	785.2	826.7
50°	565.5	567.0	568.5	577.0	585.4	604.7	623.9	652.3	680.7	719.1	757.5
52.5°	508.6	512.5	516.3	524.8	533.2	546.3	559.3	588.5	617.7	655.4	693.0
55°	456.4	458.7	461.0	467.1	473.3	488.6	504.0	529.4	554.7	589.3	623.9
57.5°	407.2	410.3	413.3	418.0	422.6	436.4	450.2	472.5	494.8	529.4	563.9
60°	356.5	360.3	364.2	369.6	374.9	385.7	396.4	416.4	436.4	467.1	497.9
62.5°	319.6	320.4	321.2	325.8	330.4	338.1	345.7	361.9	378.0	408.7	439.5
65°	278.1	280.4	282.7	285.0	287.3	293.5	299.6	313.5	327.3	350.3	373.4
67.5°	235.1	237.4	239.7	243.6	247.4	252.8	258.1	267.4	276.6	298.1	319.6
70°	182.9	182.9	182.9	189.0	195.1	204.4	213.6	220.5	227.4	245.1	262.8
72.5°	149.1	149.8	150.6	151.4	152.1	157.5	162.9	174.4	185.9	196.7	207.4
75°	121.4	122.2	122.9	123.7	124.5	126.0	127.5	131.4	135.2	147.5	159.8
77.5°	96.8	97.6	98.3	99.1	99.9	101.4	103.0	104.5	106.0	110.6	115.2
80°	73.8	74.5	75.3	76.1	76.8	77.6	78.4	79.9	81.4	83.7	86.0
82.5°	53.8	53.8	53.8	53.8	53.8	55.3	56.9	56.9	56.9	58.4	59.9
85°	33.8	33.8	33.8	34.6	35.3	35.3	35.3	36.1	36.9	36.9	36.9
87.5°	15.4	14.6	13.8	14.6	15.4	15.4	15.4	16.1	16.9	16.9	16.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3747.8	3747.8	3747.8	3747.8	3747.8	3747.8	3747.8	3747.8	3747.8	3747.8	3747.8
2.5°	3979.0	3975.2	3938.3	3901.4	3865.3	3829.2	3802.3	3775.4	3730.1	3684.8	3656.4
5°	4225.7	4196.5	4138.1	4079.7	3992.1	3904.5	3830.8	3757.0	3663.3	3569.5	3491.2
7.5°	4363.2	4339.4	4268.7	4198.0	4082.0	3966.0	3850.7	3735.5	3597.2	3458.9	3340.6
10°	4367.0	4387.0	4328.6	4270.2	4139.6	4009.0	3852.3	3695.5	3509.6	3323.7	3170.8
12.5°	4230.3	4316.3	4304.0	4291.7	4158.8	4025.9	3835.4	3644.8	3416.6	3188.5	2997.1
15°	3974.4	4141.1	4190.3	4239.5	4129.6	4019.8	3803.1	3586.4	3318.3	3050.2	2830.4
17.5°	3644.8	3878.4	4008.2	4138.1	4058.2	3978.3	3740.9	3503.5	3201.5	2899.6	2660.6
20°	3254.5	3560.3	3763.9	3967.5	3938.3	3909.1	3664.0	3418.9	3093.2	2767.4	2508.5
22.5°	2868.8	3191.5	3472.7	3753.9	3783.9	3813.9	3566.5	3319.1	2962.6	2606.1	2342.6
25°	2536.2	2864.2	3199.2	3534.2	3601.8	3669.4	3434.3	3199.2	2829.7	2460.1	2198.1
27.5°	2218.9	2530.8	2899.6	3268.4	3391.3	3514.2	3299.1	3084.0	2699.0	2314.1	2052.9
30°	1959.9	2238.8	2615.3	2991.8	3163.1	3334.4	3137.0	2939.5	2557.7	2175.8	1920.0
32.5°	1718.7	1968.4	2346.4	2724.4	2923.4	3122.4	2951.8	2781.3	2414.0	2046.8	1794.0
35°	1528.2	1751.7	2104.4	2457.0	2679.8	2902.6	2762.8	2623.0	2264.2	1905.4	1666.4
37.5°	1364.5	1552.0	1883.1	2214.2	2450.9	2687.5	2570.7	2454.0	2116.7	1779.4	1553.5
40°	1229.3	1379.9	1688.0	1996.0	2228.1	2460.1	2360.2	2260.3	1958.4	1656.5	1445.2
42.5°	1113.3	1243.1	1519.7	1796.3	2009.1	2221.9	2155.9	2089.8	1816.3	1542.8	1346.8
45°	1011.1	1120.2	1363.7	1607.3	1803.2	1999.1	1946.9	1894.6	1658.8	1422.9	1243.1
47.5°	920.4	1014.2	1231.6	1449.0	1625.0	1800.9	1752.5	1704.1	1508.9	1313.8	1150.1
50°	837.4	917.4	1098.7	1280.0	1438.3	1596.5	1556.6	1516.6	1355.3	1193.9	1052.6
52.5°	759.1	825.2	988.0	1150.9	1278.5	1406.0	1375.3	1344.5	1220.1	1095.6	967.3
55°	684.6	745.3	882.8	1020.3	1129.4	1238.5	1207.8	1177.0	1080.2	983.4	870.5
57.5°	616.9	670.0	781.4	892.8	979.6	1066.4	1051.8	1037.2	956.5	875.9	782.9
60°	545.5	593.1	689.2	785.2	855.1	925.0	908.1	891.2	833.6	776.0	696.1
62.5°	481.7	524.0	600.8	677.6	734.5	791.4	779.1	766.8	723.0	679.2	613.1
65°	414.9	456.4	518.6	580.8	625.4	670.0	659.2	648.4	615.4	582.4	529.4
67.5°	354.2	388.8	442.5	496.3	526.3	556.3	550.1	544.0	518.6	493.3	451.8
70°	292.7	322.7	367.2	411.8	432.6	453.3	455.6	457.9	434.9	411.8	381.1
72.5°	231.3	255.1	296.6	338.1	354.2	370.3	369.6	368.8	355.0	341.1	313.5
75°	177.5	195.1	227.4	259.7	273.5	287.3	290.4	293.5	280.4	267.4	252.0
77.5°	127.5	139.8	164.4	189.0	204.4	219.7	221.3	222.8	216.7	210.5	195.9
80°	89.9	93.7	109.1	124.5	140.6	156.7	159.0	161.3	155.2	149.1	139.8
82.5°	62.2	64.5	69.9	75.3	88.4	101.4	104.5	107.6	104.5	101.4	91.4
85°	37.6	38.4	40.7	43.0	49.2	55.3	58.4	61.5	59.9	58.4	53.0
87.5°	16.9	16.9	17.7	18.4	20.0	21.5	25.4	29.2	26.9	24.6	22.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3747.8	3747.8	3747.8	3747.8	3747.8	3747.8	3747.8	3747.8	3747.8	3747.8	3747.8
2.5°	3627.9	3584.1	3540.3	3508.8	3477.3	3438.2	3399.0	3397.4	3395.9	3366.7	3337.5
5°	3412.8	3336.7	3260.7	3186.1	3111.6	3037.1	2962.6	2945.7	2928.8	2903.4	2878.1
7.5°	3222.3	3100.9	2979.5	2884.2	2788.9	2714.4	2639.9	2589.2	2538.5	2499.3	2460.1
10°	3017.9	2867.3	2716.7	2601.5	2486.2	2405.6	2324.9	2266.5	2208.1	2180.4	2152.8
12.5°	2805.8	2642.2	2478.5	2365.6	2252.7	2155.9	2059.1	2006.0	1953.0	1914.6	1876.2
15°	2610.7	2434.7	2258.8	2139.0	2019.1	1928.4	1837.8	1784.8	1731.8	1693.3	1654.9
17.5°	2421.7	2244.2	2066.7	1945.3	1823.9	1741.7	1659.5	1608.1	1556.6	1532.8	1508.9
20°	2249.6	2070.6	1891.6	1777.1	1662.6	1581.9	1501.3	1473.6	1445.9	1423.7	1401.4
22.5°	2079.0	1906.9	1734.8	1625.0	1515.1	1456.7	1398.3	1376.0	1353.7	1336.8	1319.9
25°	1936.1	1764.8	1593.5	1497.4	1401.4	1356.1	1310.7	1296.1	1281.5	1264.6	1247.7
27.5°	1791.7	1628.8	1465.9	1389.1	1312.3	1275.4	1238.5	1220.1	1201.6	1187.8	1174.0
30°	1664.1	1513.6	1363.0	1299.2	1235.4	1203.2	1170.9	1150.9	1130.9	1117.9	1104.8
32.5°	1541.2	1407.5	1273.8	1219.3	1164.7	1133.2	1101.7	1082.5	1063.3	1048.0	1032.6
35°	1427.5	1311.5	1195.5	1145.5	1095.6	1064.1	1032.6	1013.4	994.2	978.8	963.5
37.5°	1327.6	1222.4	1117.1	1070.2	1023.4	995.7	968.1	948.1	928.1	912.0	895.8
40°	1233.9	1140.9	1048.0	1002.6	957.3	927.3	897.4	879.7	862.0	847.4	832.8
42.5°	1150.9	1065.6	980.4	935.8	891.2	862.8	834.4	813.6	792.9	784.4	776.0
45°	1063.3	988.0	912.7	869.7	826.7	796.7	766.8	749.1	731.4	723.7	716.1
47.5°	986.5	916.6	846.7	804.4	762.2	735.3	708.4	694.5	680.7	670.0	659.2
50°	911.2	843.6	776.0	735.3	694.5	671.5	648.4	631.5	614.6	607.0	599.3
52.5°	839.0	777.5	716.1	674.6	633.1	610.8	588.5	573.9	559.3	543.2	527.1
55°	757.5	703.8	650.0	613.1	576.2	553.2	530.1	513.2	496.3	479.4	462.5
57.5°	689.9	636.9	583.9	550.9	517.8	495.6	473.3	454.8	436.4	422.6	408.7
60°	616.2	570.1	524.0	491.7	459.4	437.9	416.4	398.7	381.1	374.2	367.2
62.5°	547.0	504.0	461.0	432.6	404.1	383.4	362.6	351.1	339.6	335.0	330.4
65°	476.3	439.5	402.6	376.5	350.3	332.7	315.0	309.6	304.2	300.4	296.6
67.5°	410.3	378.8	347.3	324.2	301.2	288.9	276.6	270.4	264.3	259.7	255.1
70°	350.3	322.7	295.0	275.1	255.1	243.6	232.0	226.6	221.3	212.8	204.4
72.5°	285.8	264.3	242.8	227.4	212.1	202.1	192.1	181.3	170.6	162.9	155.2
75°	236.6	215.1	193.6	179.0	164.4	152.9	141.4	137.5	133.7	131.4	129.1
77.5°	181.3	162.9	144.4	132.9	121.4	116.0	110.6	108.3	106.0	105.3	104.5
80°	130.6	115.2	99.9	93.7	87.6	86.0	84.5	83.0	81.4	80.7	79.9
82.5°	81.4	73.8	66.1	64.5	63.0	62.2	61.5	60.7	59.9	59.2	58.4
85°	47.6	44.6	41.5	40.7	40.0	39.2	38.4	38.4	38.4	38.4	38.4
87.5°	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	19.2	18.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P832450

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CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	3747.8	3747.8	3747.8	3747.8
2.5°	3329.8	3322.1	3319.1	3316.0
5°	2854.2	2830.4	2825.0	2819.7
7.5°	2450.1	2440.1	2407.1	2374.1
10°	2122.1	2091.3	2077.5	2063.7
12.5°	1847.8	1819.3	1814.7	1810.1
15°	1634.9	1615.0	1608.1	1601.1
17.5°	1495.1	1481.3	1472.8	1464.4
20°	1391.4	1381.4	1375.3	1369.1
22.5°	1312.3	1304.6	1300.0	1295.4
25°	1236.2	1224.7	1220.8	1217.0
27.5°	1164.0	1154.0	1150.1	1146.3
30°	1096.4	1087.9	1082.5	1077.2
32.5°	1022.6	1012.6	1009.5	1006.5
35°	957.3	951.2	948.1	945.0
37.5°	888.2	880.5	875.9	871.3
40°	829.0	825.2	822.9	820.5
42.5°	769.1	762.2	761.4	760.6
45°	709.1	702.2	700.7	699.2
47.5°	653.1	646.9	646.1	645.4
50°	590.8	582.4	576.2	570.1
52.5°	519.4	511.7	506.3	500.9
55°	454.1	445.6	441.0	436.4
57.5°	404.9	401.1	398.7	396.4
60°	364.9	362.6	361.1	359.6
62.5°	328.1	325.8	325.8	325.8
65°	294.3	292.0	289.6	287.3
67.5°	250.5	245.9	245.1	244.3
70°	197.5	190.5	189.8	189.0
72.5°	154.4	153.7	152.1	150.6
75°	127.5	126.0	126.0	126.0
77.5°	103.0	101.4	101.4	101.4
80°	79.1	78.4	79.1	79.9
82.5°	58.4	58.4	57.6	56.9
85°	37.6	36.9	36.9	36.9
87.5°	18.4	18.4	18.4	18.4
90°	0.0	0.0	0.0	0.0

TEST NUMBER: P832450

CATALOG NUMBER: S123RDP-S1165D835-4F0-1E-UDD-G

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	17.55	19.01	17.92	19.32	19.63	22.22	23.67	22.58	23.98	24.30
	3H	18.81	20.12	19.19	20.45	20.81	23.76	25.06	24.14	25.39	25.75
	4H	19.22	20.44	19.62	20.79	21.17	24.27	25.49	24.67	25.84	26.22
	6H	19.53	20.66	19.95	21.03	21.42	24.61	25.74	25.03	26.11	26.50
	8H	19.64	20.71	20.06	21.10	21.50	24.71	25.78	25.14	26.17	26.57
	12H	19.71	20.73	20.14	21.11	21.54	24.76	25.78	25.19	26.17	26.59
4H	2H	18.34	19.56	18.74	19.91	20.29	22.28	23.50	22.68	23.85	24.23
	3H	19.76	20.77	20.17	21.17	21.58	23.99	25.00	24.40	25.40	25.80
	4H	20.24	21.15	20.67	21.56	22.00	24.62	25.52	25.05	25.94	26.38
	6H	20.64	21.43	21.10	21.87	22.33	25.08	25.87	25.54	26.32	26.78
	8H	20.77	21.51	21.24	21.95	22.42	25.23	25.96	25.69	26.41	26.87
	12H	20.88	21.53	21.36	22.01	22.48	25.31	25.97	25.80	26.45	26.92
8H	4H	20.59	21.33	21.06	21.77	22.24	24.62	25.36	25.09	25.80	26.27
	6H	21.08	21.68	21.58	22.18	22.66	25.14	25.75	25.64	26.24	26.72
	8H	21.27	21.81	21.79	22.33	22.82	25.33	25.87	25.84	26.38	26.87
	12H	21.44	21.92	21.95	22.41	22.98	25.47	25.95	25.98	26.44	27.01
12H	4H	20.63	21.29	21.12	21.77	22.24	24.60	25.26	25.08	25.74	26.21
	6H	21.14	21.68	21.65	22.19	22.68	25.11	25.66	25.63	26.17	26.66
	8H	21.38	21.86	21.89	22.35	22.92	25.34	25.81	25.85	26.31	26.87