

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: P832447

Luminaire Tested: S123RDP-S1000D940-4F0-1E-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: P832447
 Test Lab: INNOVATION CENTER
 Issue Date: 05/03/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: NEO-RAY
 Catalog Number: S123RDP-S1000D940-4F0-1E-UDD-G
 Description: DEFINE 3 DIRECT PENDANT LED LUMINAIRE
 DOWNLIGHT 1000 LUMENS PER FOOT, GRAZE OPTIC

Light Source: -
 Ballast/Driver: -

Summary

Lumens per Lamp: N/A
 Luminaire Lumens: 3836.5 lumens
 Efficiency: N/A
 Efficacy: 109.3 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

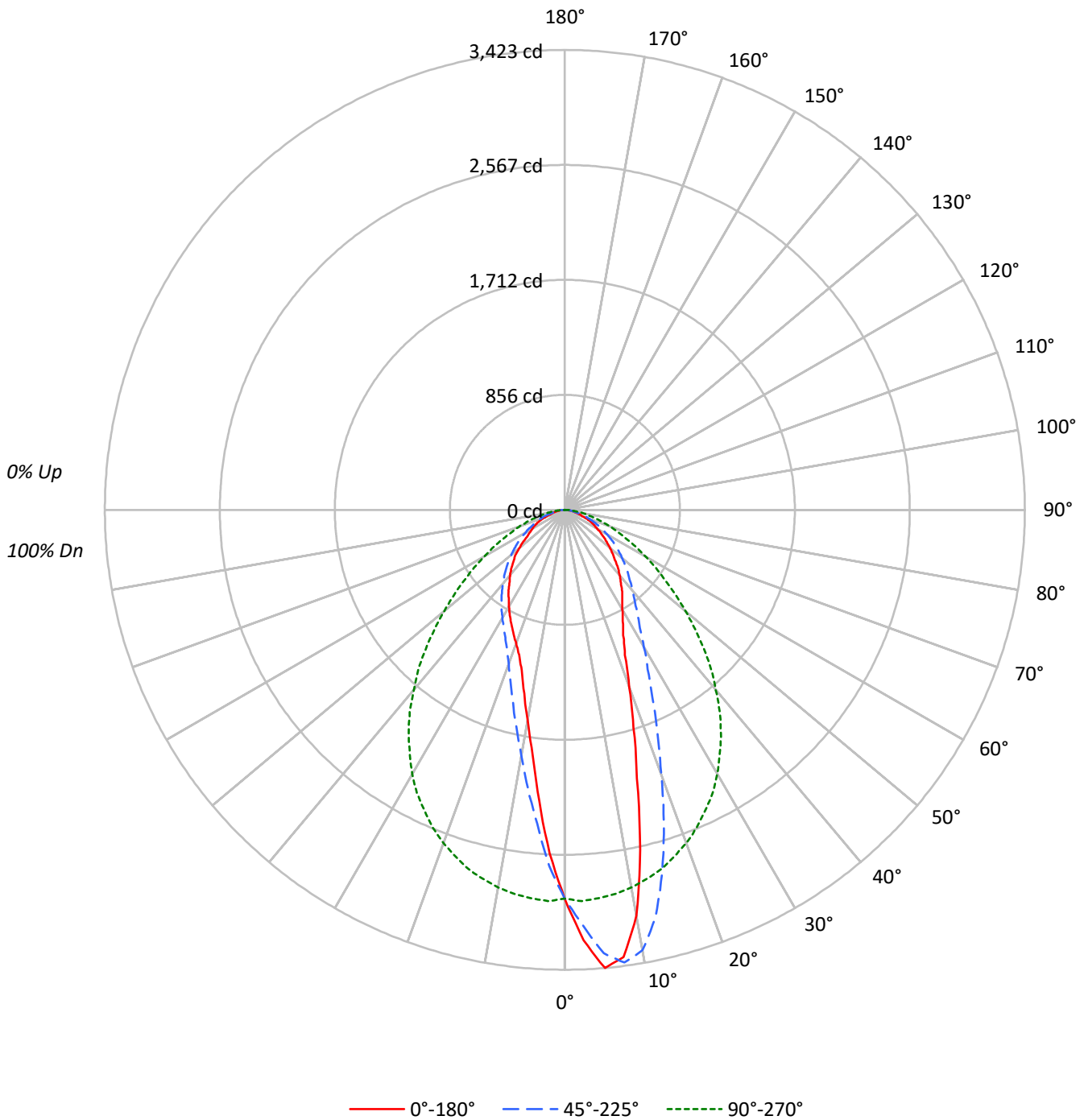
Input Watts (W): 35.1
 Input Voltage (V): 120
 Input Current (Ain): NR
 Voltage Rise (V): NR
 Power Factor: NR
 Total Harmonic Distortion (THDi): NR
 Frequency (hertz): 60
 Stabilization Time: NR
 Operation Time: NR
 Ambient Temperature (°C): NR
 Test Distance: 24 FT

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°	31146	31146	31146	31146	31146
5°	36983	35804	31342	25337	23523
10°	33507	36366	31186	20300	17415
15°	23071	31181	30857	16592	13776
20°	16049	24007	30237	13991	12109
25°	12231	18296	29337	12435	11159
30°	10647	14628	28209	11545	10337
35°	9775	12339	26612	10796	9587
40°	8918	11019	24522	10061	8901
45°	8054	10077	22267	9363	8217
50°	7311	9297	19609	8683	7371
55°	6613	8539	17055	8015	6322
60°	5924	7765	14813	7279	5976
65°	5468	6890	12753	6543	5652
70°	4444	5954	11125	5917	4592
75°	3897	4737	9424	4907	4047
80°	3527	4011	7724	4116	3825
85°	3223	3520	5866	3742	3520

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 80°
 Vertical Angle: 45°
 Luminance: 23496 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	263.7	6.9
10°-20°	610.3	15.9
20°-30°	700.2	18.3
30°-40°	690.2	18.0
40°-50°	608.7	15.9
50°-60°	468.3	12.2
60°-70°	307.9	8.0
70°-80°	149.5	3.9
80°-90°	37.7	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°	1574.3	41.0
0°-40°	2264.5	59.0
0°-60°	3341.4	87.1
0°-90°	3836.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3836.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2894	2894	2894	2894	2894	
5°	3423	3314	2901	2345	2177	313
15°	2070	2798	2769	1489	1236	584
25°	1030	1540	2470	1047	940	486
35°	744	939	2025	822	730	464
45°	529	662	1463	615	540	411
55°	352	455	909	427	337	316
65°	215	270	501	257	222	210
75°	94	114	227	118	97	101
85°	26	28	48	30	28	29
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°	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6
2.5°	3206.8	3196.7	3186.7	3183.7	3180.7	3171.2	3161.7	3140.4	3119.0	3097.1	3075.1
5°	3422.8	3423.9	3425.1	3422.2	3419.2	3406.7	3394.3	3368.2	3342.1	3313.6	3285.1
7.5°	3356.3	3375.3	3394.3	3397.8	3401.4	3410.9	3420.4	3414.4	3408.5	3397.8	3387.2
10°	3065.6	3064.5	3063.3	3084.6	3106.0	3169.5	3232.9	3265.6	3298.2	3327.2	3356.3
12.5°	2591.1	2592.9	2594.6	2664.6	2734.6	2794.6	2854.5	2937.5	3020.6	3110.1	3199.7
15°	2070.3	2099.3	2128.4	2190.7	2253.0	2343.1	2433.3	2544.8	2656.3	2798.1	2939.9
17.5°	1700.1	1712.6	1725.0	1784.9	1844.8	1930.3	2015.7	2142.0	2268.4	2451.1	2633.8
20°	1401.1	1412.4	1423.7	1467.0	1510.3	1592.1	1674.0	1794.4	1914.8	2095.8	2276.7
22.5°	1169.8	1191.7	1213.7	1242.7	1271.8	1331.1	1390.5	1513.2	1636.0	1800.9	1965.9
25°	1029.8	1039.9	1050.0	1074.9	1099.8	1156.7	1213.7	1295.0	1376.2	1540.5	1704.9
27.5°	934.9	937.8	940.8	959.2	977.6	1014.4	1051.1	1126.5	1201.8	1337.1	1472.3
30°	856.6	861.9	867.3	881.5	895.7	922.4	949.1	1002.5	1055.9	1176.9	1297.9
32.5°	796.1	799.0	802.0	813.9	825.7	845.3	864.9	907.0	949.1	1041.7	1134.2
35°	743.9	744.5	745.1	754.0	762.9	781.8	800.8	835.8	870.8	939.0	1007.2
37.5°	684.6	688.7	692.9	699.4	705.9	722.5	739.1	767.6	796.1	852.4	908.8
40°	634.7	638.3	641.8	649.6	657.3	670.3	683.4	709.5	735.6	784.2	832.8
42.5°	584.9	587.3	589.6	597.4	605.1	621.1	637.1	657.9	678.6	719.0	759.3
45°	529.1	535.1	541.0	549.3	557.6	571.2	584.9	606.2	627.6	662.0	696.4
47.5°	482.9	485.8	488.8	495.9	503.0	519.6	536.3	555.2	574.2	606.2	638.3
50°	436.6	437.8	439.0	445.5	452.0	466.8	481.7	503.6	525.6	555.2	584.9
52.5°	392.7	395.7	398.6	405.2	411.7	421.8	431.8	454.4	476.9	506.0	535.1
55°	352.4	354.1	355.9	360.7	365.4	377.3	389.1	408.7	428.3	455.0	481.7
57.5°	314.4	316.8	319.1	322.7	326.3	336.9	347.6	364.8	382.0	408.7	435.4
60°	275.2	278.2	281.2	285.3	289.5	297.8	306.1	321.5	336.9	360.7	384.4
62.5°	246.8	247.4	248.0	251.5	255.1	261.0	266.9	279.4	291.9	315.6	339.3
65°	214.7	216.5	218.3	220.1	221.9	226.6	231.3	242.0	252.7	270.5	288.3
67.5°	181.5	183.3	185.1	188.0	191.0	195.2	199.3	206.4	213.6	230.2	246.8
70°	141.2	141.2	141.2	145.9	150.7	157.8	164.9	170.2	175.6	189.2	202.9
72.5°	115.1	115.7	116.3	116.9	117.5	121.6	125.8	134.7	143.6	151.9	160.2
75°	93.7	94.3	94.9	95.5	96.1	97.3	98.5	101.4	104.4	113.9	123.4
77.5°	74.7	75.3	75.9	76.5	77.1	78.3	79.5	80.7	81.9	85.4	89.0
80°	56.9	57.5	58.1	58.7	59.3	59.9	60.5	61.7	62.9	64.7	66.4
82.5°	41.5	41.5	41.5	41.5	41.5	42.7	43.9	43.9	43.9	45.1	46.3
85°	26.1	26.1	26.1	26.7	27.3	27.3	27.3	27.9	28.5	28.5	28.5
87.5°	11.9	11.3	10.7	11.3	11.9	11.9	11.9	12.5	13.1	13.1	13.1
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°	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6
2.5°	3072.2	3069.2	3040.7	3012.3	2984.4	2956.5	2935.7	2915.0	2880.0	2845.0	2823.0
5°	3262.6	3240.0	3195.0	3149.9	3082.3	3014.6	2957.7	2900.7	2828.4	2756.0	2695.5
7.5°	3368.8	3350.4	3295.8	3241.2	3151.7	3062.1	2973.1	2884.1	2777.4	2670.6	2579.2
10°	3371.7	3387.2	3342.1	3297.0	3196.1	3095.3	2974.3	2853.3	2709.7	2566.2	2448.1
12.5°	3266.1	3332.6	3323.1	3313.6	3211.0	3108.4	2961.2	2814.1	2638.0	2461.8	2314.1
15°	3068.6	3197.3	3235.3	3273.3	3188.4	3103.6	2936.3	2769.0	2562.0	2355.0	2185.3
17.5°	2814.1	2994.5	3094.7	3195.0	3133.3	3071.6	2888.3	2705.0	2471.9	2238.7	2054.2
20°	2512.8	2748.9	2906.1	3063.3	3040.7	3018.2	2829.0	2639.7	2388.2	2136.7	1936.8
22.5°	2215.0	2464.1	2681.3	2898.4	2921.5	2944.6	2753.6	2562.6	2287.4	2012.1	1808.7
25°	1958.1	2211.4	2470.1	2728.7	2780.9	2833.1	2651.6	2470.1	2184.7	1899.4	1697.1
27.5°	1713.2	1954.0	2238.7	2523.5	2618.4	2713.3	2547.2	2381.1	2083.9	1786.7	1585.0
30°	1513.2	1728.6	2019.2	2309.9	2442.2	2574.5	2422.0	2269.6	1974.8	1679.9	1482.4
32.5°	1327.0	1519.8	1811.6	2103.5	2257.1	2410.8	2279.1	2147.4	1863.8	1580.3	1385.1
35°	1179.9	1352.5	1624.8	1897.0	2069.1	2241.1	2133.1	2025.2	1748.2	1471.1	1286.6
37.5°	1053.5	1198.3	1453.9	1709.6	1892.3	2075.0	1984.8	1894.7	1634.3	1373.8	1199.4
40°	949.1	1065.4	1303.3	1541.1	1720.3	1899.4	1822.3	1745.2	1512.1	1278.9	1115.8
42.5°	859.5	959.8	1173.3	1386.9	1551.2	1715.5	1664.5	1613.5	1402.3	1191.1	1039.9
45°	780.6	864.9	1052.9	1241.0	1392.2	1543.5	1503.2	1462.8	1280.7	1098.6	959.8
47.5°	710.7	783.0	950.9	1118.8	1254.6	1390.5	1353.1	1315.7	1165.0	1014.4	888.0
50°	646.6	708.3	848.3	988.3	1110.5	1232.7	1201.8	1171.0	1046.4	921.8	812.7
52.5°	586.1	637.1	762.9	888.6	987.1	1085.6	1061.8	1038.1	942.0	845.9	746.8
55°	528.5	575.4	681.6	787.8	872.0	956.2	932.5	908.8	834.0	759.3	672.1
57.5°	476.3	517.3	603.3	689.3	756.3	823.4	812.1	800.8	738.5	676.2	604.5
60°	421.2	457.9	532.1	606.2	660.2	714.2	701.2	688.1	643.6	599.1	537.4
62.5°	371.9	404.6	463.9	523.2	567.1	611.0	601.5	592.0	558.2	524.4	473.4
65°	320.3	352.4	400.4	448.5	482.9	517.3	509.0	500.7	475.2	449.6	408.7
67.5°	273.5	300.2	341.7	383.2	406.3	429.5	424.7	420.0	400.4	380.8	348.8
70°	226.0	249.1	283.5	318.0	334.0	350.0	351.8	353.5	335.7	318.0	294.2
72.5°	178.6	196.9	229.0	261.0	273.5	285.9	285.3	284.7	274.1	263.4	242.0
75°	137.0	150.7	175.6	200.5	211.2	221.9	224.2	226.6	216.5	206.4	194.6
77.5°	98.5	108.0	126.9	145.9	157.8	169.7	170.8	172.0	167.3	162.5	151.3
80°	69.4	72.4	84.2	96.1	108.6	121.0	122.8	124.6	119.8	115.1	108.0
82.5°	48.0	49.8	54.0	58.1	68.2	78.3	80.7	83.0	80.7	78.3	70.6
85°	29.1	29.7	31.4	33.2	38.0	42.7	45.1	47.5	46.3	45.1	40.9
87.5°	13.1	13.1	13.6	14.2	15.4	16.6	19.6	22.5	20.8	19.0	17.2
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°	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6	2893.6
2.5°	2801.1	2767.3	2733.5	2709.1	2684.8	2654.6	2624.3	2623.1	2621.9	2599.4	2576.9
5°	2635.0	2576.3	2517.5	2460.0	2402.5	2344.9	2287.4	2274.3	2261.3	2241.7	2222.1
7.5°	2487.9	2394.1	2300.4	2226.9	2153.3	2095.8	2038.2	1999.1	1959.9	1929.7	1899.4
10°	2330.1	2213.8	2097.5	2008.6	1919.6	1857.3	1795.0	1749.9	1704.9	1683.5	1662.1
12.5°	2166.4	2040.0	1913.7	1826.5	1739.3	1664.5	1589.8	1548.8	1507.9	1478.2	1448.6
15°	2015.7	1879.8	1744.0	1651.5	1558.9	1488.9	1418.9	1378.0	1337.1	1307.4	1277.7
17.5°	1869.8	1732.7	1595.7	1502.0	1408.3	1344.8	1281.3	1241.6	1201.8	1183.4	1165.0
20°	1736.9	1598.7	1460.5	1372.1	1283.7	1221.4	1159.1	1137.8	1116.4	1099.2	1082.0
22.5°	1605.2	1472.3	1339.4	1254.6	1169.8	1124.7	1079.6	1062.4	1045.2	1032.2	1019.1
25°	1494.9	1362.6	1230.3	1156.1	1082.0	1047.0	1012.0	1000.7	989.5	976.4	963.4
27.5°	1383.3	1257.6	1131.8	1072.5	1013.2	984.7	956.2	942.0	927.8	917.1	906.4
30°	1284.9	1168.6	1052.3	1003.1	953.9	928.9	904.0	888.6	873.2	863.1	853.0
32.5°	1190.0	1086.7	983.5	941.4	899.3	875.0	850.6	835.8	821.0	809.1	797.3
35°	1102.2	1012.6	923.0	884.5	845.9	821.6	797.3	782.4	767.6	755.7	743.9
37.5°	1025.0	943.8	862.5	826.3	790.1	768.8	747.4	732.0	716.6	704.1	691.7
40°	952.7	880.9	809.1	774.1	739.1	716.0	692.9	679.2	665.6	654.3	643.0
42.5°	888.6	822.8	756.9	722.5	688.1	666.2	644.2	628.2	612.2	605.7	599.1
45°	821.0	762.9	704.7	671.5	638.3	615.1	592.0	578.4	564.7	558.8	552.9
47.5°	761.7	707.7	653.7	621.1	588.5	567.7	546.9	536.3	525.6	517.3	509.0
50°	703.5	651.3	599.1	567.7	536.3	518.5	500.7	487.6	474.6	468.6	462.7
52.5°	647.8	600.3	552.9	520.8	488.8	471.6	454.4	443.1	431.8	419.4	406.9
55°	584.9	543.4	501.8	473.4	444.9	427.1	409.3	396.3	383.2	370.2	357.1
57.5°	532.7	491.8	450.8	425.3	399.8	382.6	365.4	351.2	336.9	326.3	315.6
60°	475.7	440.2	404.6	379.6	354.7	338.1	321.5	307.9	294.2	288.9	283.5
62.5°	422.4	389.1	355.9	334.0	312.0	296.0	280.0	271.1	262.2	258.6	255.1
65°	367.8	339.3	310.8	290.7	270.5	256.9	243.2	239.1	234.9	231.9	229.0
67.5°	316.8	292.4	268.1	250.3	232.5	223.0	213.6	208.8	204.1	200.5	196.9
70°	270.5	249.1	227.8	212.4	196.9	188.0	179.1	175.0	170.8	164.3	157.8
72.5°	220.7	204.1	187.5	175.6	163.7	156.0	148.3	140.0	131.7	125.8	119.8
75°	182.7	166.1	149.5	138.2	126.9	118.0	109.1	106.2	103.2	101.4	99.7
77.5°	140.0	125.8	111.5	102.6	93.7	89.6	85.4	83.6	81.9	81.3	80.7
80°	100.8	89.0	77.1	72.4	67.6	66.4	65.3	64.1	62.9	62.3	61.7
82.5°	62.9	56.9	51.0	49.8	48.6	48.0	47.5	46.9	46.3	45.7	45.1
85°	36.8	34.4	32.0	31.4	30.8	30.3	29.7	29.7	29.7	29.7	29.7
87.5°	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	14.8	14.2
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: P832447

CATALOG NUMBER: S123RDP-S1000D940-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2893.6	2893.6	2893.6	2893.6
2.5°	2570.9	2565.0	2562.6	2560.2
5°	2203.7	2185.3	2181.2	2177.0
7.5°	1891.7	1884.0	1858.5	1833.0
10°	1638.4	1614.7	1604.0	1593.3
12.5°	1426.6	1404.7	1401.1	1397.6
15°	1262.3	1246.9	1241.6	1236.2
17.5°	1154.4	1143.7	1137.2	1130.6
20°	1074.3	1066.6	1061.8	1057.1
22.5°	1013.2	1007.2	1003.7	1000.1
25°	954.5	945.6	942.6	939.6
27.5°	898.7	891.0	888.0	885.1
30°	846.5	840.0	835.8	831.7
32.5°	789.5	781.8	779.5	777.1
35°	739.1	734.4	732.0	729.6
37.5°	685.7	679.8	676.2	672.7
40°	640.1	637.1	635.3	633.5
42.5°	593.8	588.5	587.9	587.3
45°	547.5	542.2	541.0	539.8
47.5°	504.2	499.5	498.9	498.3
50°	456.2	449.6	444.9	440.2
52.5°	401.0	395.1	390.9	386.8
55°	350.6	344.1	340.5	336.9
57.5°	312.6	309.6	307.9	306.1
60°	281.8	280.0	278.8	277.6
62.5°	253.3	251.5	251.5	251.5
65°	227.2	225.4	223.6	221.9
67.5°	193.4	189.8	189.2	188.6
70°	152.5	147.1	146.5	145.9
72.5°	119.2	118.6	117.5	116.3
75°	98.5	97.3	97.3	97.3
77.5°	79.5	78.3	78.3	78.3
80°	61.1	60.5	61.1	61.7
82.5°	45.1	45.1	44.5	43.9
85°	29.1	28.5	28.5	28.5
87.5°	14.2	14.2	14.2	14.2
90°	0.0	0.0	0.0	0.0

TEST NUMBER: P832447

CATALOG NUMBER: S123RDP-S1000D940-4F0-1E-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	16.65	18.11	17.02	18.42	18.74	21.32	22.77	21.68	23.09	23.40
	3H	17.92	19.22	18.29	19.55	19.91	22.86	24.16	23.24	24.49	24.85
	4H	18.32	19.54	18.73	19.89	20.27	23.37	24.59	23.78	24.94	25.32
	6H	18.63	19.76	19.05	20.13	20.52	23.71	24.84	24.13	25.21	25.60
	8H	18.74	19.81	19.16	20.20	20.60	23.81	24.88	24.24	25.27	25.67
	12H	18.81	19.83	19.24	20.21	20.64	23.86	24.88	24.29	25.27	25.70
4H	2H	17.44	18.66	17.85	19.01	19.39	21.38	22.60	21.78	22.95	23.33
	3H	18.86	19.87	19.28	20.28	20.68	23.09	24.10	23.50	24.50	24.90
	4H	19.34	20.25	19.77	20.67	21.11	23.72	24.62	24.15	25.04	25.48
	6H	19.74	20.53	20.20	20.97	21.43	24.19	24.97	24.64	25.42	25.88
	8H	19.87	20.61	20.34	21.05	21.52	24.33	25.06	24.79	25.51	25.98
	12H	19.98	20.63	20.46	21.11	21.58	24.42	25.07	24.90	25.55	26.02
8H	4H	19.70	20.43	20.16	20.88	21.34	23.73	24.46	24.19	24.91	25.37
	6H	20.18	20.78	20.68	21.28	21.76	24.24	24.85	24.74	25.34	25.82
	8H	20.37	20.92	20.89	21.43	21.92	24.43	24.97	24.95	25.48	25.97
	12H	20.54	21.02	21.05	21.51	22.08	24.57	25.05	25.08	25.54	26.11
12H	4H	19.73	20.39	20.22	20.87	21.34	23.70	24.36	24.19	24.84	25.31
	6H	20.24	20.78	20.75	21.29	21.78	24.22	24.76	24.73	25.27	25.76
	8H	20.48	20.96	21.00	21.46	22.02	24.44	24.91	24.95	25.41	25.97