

Scaled data based on original data using
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: P831775

Luminaire Tested: S123RDIP-S1000D1025U850-4F0-1E-UDD-G1

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P831775
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-2, G3-1807-864-9)
Test Lab: INNOVATION CENTER
Issue Date: 05/03/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDIP-S1000D1025U850-4F0-1E-UDD-G1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 1025 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: -

Summary

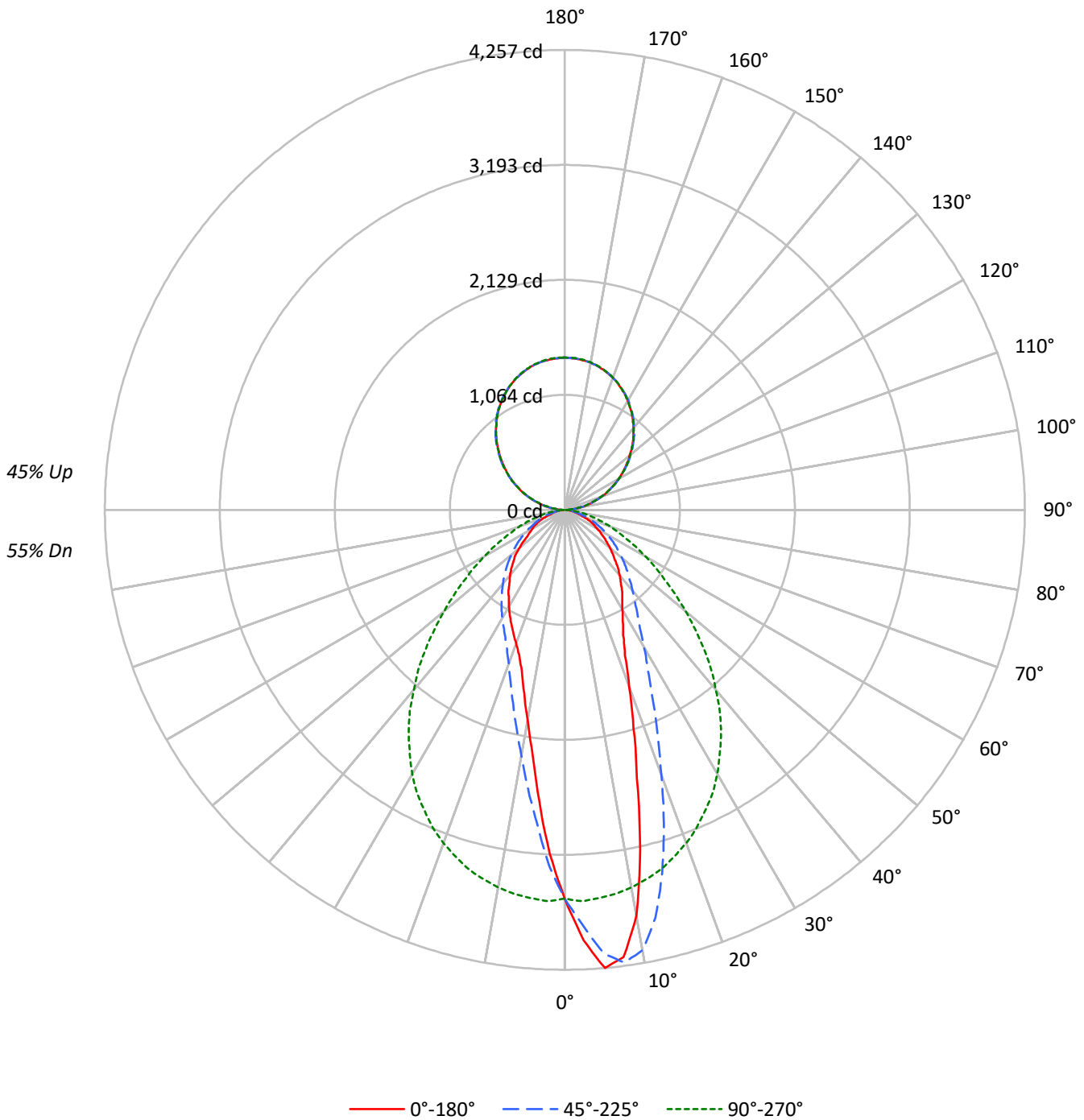
Lumens per Lamp: N/A
Luminaire Lumens: 8679.0 lumens
Efficiency: N/A
Efficacy: 142.3 lumens/watt
Spacing Criteria (0/90/45): 0.55 / 1.17 / 0.8
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 61
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

TEST NUMBER: P831775

CATALOG NUMBER: S123RDIP-S1000D1025U850-4F0-1E-UDD-G1

Luminous Intensity Polar Plot





TEST NUMBER: P831775

CATALOG NUMBER: S123RDIP-S1000D1025U850-4F0-1E-UDD-G1

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	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55				
1	100	96	92	89	93	89	86	83	77	75	73	65	64	62	55	54	53	48				
2	92	85	79	74	85	79	74	70	68	65	62	59	56	54	50	48	46	42				
3	84	75	68	63	78	70	64	60	61	57	53	53	49	47	45	42	40	37				
4	78	67	60	54	72	63	57	52	55	50	46	48	44	41	41	38	36	32				
5	72	61	53	47	67	57	50	45	50	45	41	43	39	36	37	34	32	29				
6	67	55	47	42	62	52	45	40	46	40	36	40	36	32	34	31	29	26				
7	62	50	43	37	58	47	40	36	42	36	32	37	32	29	32	29	26	24				
8	58	46	39	33	54	43	37	32	38	33	29	34	30	27	30	26	24	22				
9	54	42	35	30	50	40	34	29	36	30	27	31	27	24	28	24	22	20				
10	51	39	32	28	47	37	31	27	33	28	24	29	25	22	26	23	20	18				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	38736	38736	38736	38736	38736
5°	45995	44529	38980	31511	29255
10°	41673	45228	38786	25247	21659
15°	28691	38780	38376	20635	17133
20°	19961	29857	37606	17400	15060
25°	15210	22755	36485	15465	13879
30°	13241	18192	35082	14359	12855
35°	12156	15347	33097	13427	11924
40°	11092	13704	30498	12513	11071
45°	10018	12533	27694	11645	10219
50°	9093	11563	24387	10798	9167
55°	8223	10620	21210	9969	7863
60°	7369	9655	18424	9052	7434
65°	6803	8568	15860	8135	7027
70°	5526	7405	13838	7361	5712
75°	4849	5889	11720	6105	5032
80°	4389	4984	9602	5120	4754
85°	4014	4372	7287	4644	4372

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 80°
 Vertical Angle: 45°
 Luminance: 29221 cd/sqm



TEST NUMBER: P831775

CATALOG NUMBER: S123RDIP-S1000D1025U850-4F0-1E-UDD-G1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	328.0	3.8
10°-20°	759.0	8.7
20°-30°	870.9	10.0
30°-40°	858.4	9.9
40°-50°	757.0	8.7
50°-60°	582.4	6.7
60°-70°	382.9	4.4
70°-80°	185.9	2.1
80°-90°	49.9	0.6
90°-100°	90.7	1.0
100°-110°	274.6	3.2
110°-120°	467.4	5.4
120°-130°	614.9	7.1
130°-140°	691.2	8.0
140°-150°	679.5	7.8
150°-160°	572.1	6.6
160°-170°	380.9	4.4
170°-180°	133.4	1.5
0°-30°	1957.9	22.6
0°-40°	2816.3	32.4
0°-60°	4155.7	47.9
0°-90°	4774.3	55.0
90°-120°	832.7	9.6
90°-150°	2818.3	32.5
90°-180°	3905.0	45.0
0°-180°	8679.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3599	3599	3599	3599	3599	
5°	4257	4121	3608	2916	2708	389
15°	2575	3480	3444	1852	1538	727
25°	1281	1916	3072	1302	1169	605
35°	925	1168	2519	1022	907	577
45°	658	823	1819	765	671	511
55°	438	566	1130	531	419	393
65°	267	336	623	319	276	262
75°	117	142	282	147	121	125
85°	32	35	59	38	35	35
90°	33	27	1	27	33	18
95°	86	82	65	82	86	87
105°	264	261	249	261	264	279
115°	472	472	470	472	472	467
125°	681	690	689	690	681	609
135°	892	899	893	899	892	686
145°	1084	1089	1084	1089	1084	677
155°	1239	1242	1241	1242	1239	571
165°	1347	1348	1352	1348	1347	380
175°	1400	1402	1406	1402	1400	133
180°	1409	1409	1409	1409	1409	



TEST NUMBER: P831775

CATALOG NUMBER: S123RDIP-S1000D1025U850-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3598.7	3598.7	3598.7	3598.7	3598.7	3598.7	3598.7	3598.7	3598.7	3598.7	3598.7
2.5°	3988.3	3975.7	3963.2	3959.5	3955.8	3944.0	3932.2	3905.6	3879.1	3851.8	3824.5
5°	4256.8	4258.3	4259.7	4256.1	4252.4	4236.9	4221.4	4188.9	4156.5	4121.1	4085.6
7.5°	4174.2	4197.8	4221.4	4225.8	4230.2	4242.0	4253.8	4246.5	4239.1	4225.8	4212.5
10°	3812.7	3811.2	3809.7	3836.3	3862.8	3941.8	4020.7	4061.3	4101.9	4138.0	4174.2
12.5°	3222.5	3224.7	3226.9	3314.0	3401.0	3475.5	3550.0	3653.3	3756.6	3868.0	3979.4
15°	2574.7	2610.9	2647.0	2724.5	2802.0	2914.1	3026.2	3164.9	3303.6	3480.0	3656.3
17.5°	2114.4	2129.9	2145.4	2219.9	2294.4	2400.6	2506.9	2664.0	2821.1	3048.4	3275.6
20°	1742.6	1756.6	1770.6	1824.4	1878.3	1980.1	2081.9	2231.7	2381.4	2606.5	2831.5
22.5°	1454.8	1482.1	1509.4	1545.6	1581.7	1655.5	1729.3	1882.0	2034.7	2239.8	2444.9
25°	1280.7	1293.3	1305.8	1336.8	1367.8	1438.6	1509.4	1610.5	1711.6	1915.9	2120.3
27.5°	1162.7	1166.4	1170.1	1192.9	1215.8	1261.5	1307.3	1401.0	1494.7	1662.9	1831.1
30°	1065.3	1071.9	1078.6	1096.3	1114.0	1147.2	1180.4	1246.8	1313.2	1463.7	1614.2
32.5°	990.1	993.7	997.4	1012.2	1026.9	1051.3	1075.6	1128.0	1180.4	1295.5	1410.6
35°	925.1	925.9	926.6	937.7	948.7	972.4	996.0	1039.5	1083.0	1167.9	1252.7
37.5°	851.4	856.5	861.7	869.8	877.9	898.6	919.2	954.6	990.1	1060.1	1130.2
40°	789.4	793.8	798.2	807.8	817.4	833.7	849.9	882.3	914.8	975.3	1035.8
42.5°	727.4	730.4	733.3	742.9	752.5	772.4	792.3	818.2	844.0	894.1	944.3
45°	658.1	665.4	672.8	683.2	693.5	710.4	727.4	754.0	780.5	823.3	866.1
47.5°	600.5	604.2	607.9	616.8	625.6	646.3	666.9	690.5	714.1	754.0	793.8
50°	543.0	544.5	545.9	554.0	562.2	580.6	599.1	626.3	653.6	690.5	727.4
52.5°	488.4	492.1	495.8	503.9	512.0	524.5	537.1	565.1	593.1	629.3	665.4
55°	438.2	440.4	442.6	448.5	454.5	469.2	484.0	508.3	532.7	565.9	599.1
57.5°	391.0	394.0	396.9	401.3	405.8	419.0	432.3	453.7	475.1	508.3	541.5
60°	342.3	346.0	349.7	354.9	360.0	370.3	380.7	399.9	419.0	448.5	478.1
62.5°	306.9	307.6	308.4	312.8	317.2	324.6	332.0	347.5	363.0	392.5	422.0
65°	267.1	269.3	271.5	273.7	275.9	281.8	287.7	301.0	314.3	336.4	358.5
67.5°	225.8	228.0	230.2	233.9	237.6	242.7	247.9	256.7	265.6	286.2	306.9
70°	175.6	175.6	175.6	181.5	187.4	196.2	205.1	211.7	218.4	235.3	252.3
72.5°	143.1	143.9	144.6	145.3	146.1	151.2	156.4	167.5	178.5	188.9	199.2
75°	116.6	117.3	118.0	118.8	119.5	121.0	122.5	126.2	129.8	141.6	153.5
77.5°	93.0	93.7	94.4	95.2	95.9	97.4	98.9	100.3	101.8	106.2	110.7
80°	70.8	71.6	72.3	73.0	73.8	74.5	75.3	76.7	78.2	80.4	82.6
82.5°	51.6	51.6	51.6	51.6	51.6	53.1	54.6	54.6	54.6	56.1	57.5
85°	32.5	32.5	32.5	33.2	33.9	33.9	33.9	34.7	35.4	35.4	35.4
87.5°	14.8	14.0	13.3	14.0	14.8	14.8	14.8	15.5	16.2	16.2	16.2
90°	33.2	32.7	32.2	31.7	31.2	30.5	29.5	28.5	27.6	26.6	23.4
92.5°	47.6	48.1	48.6	49.1	49.6	49.4	48.7	48.0	47.2	46.5	45.0
95°	86.3	86.3	86.3	86.3	86.3	85.9	84.9	83.9	82.9	81.9	80.0
97.5°	124.0	124.2	124.5	124.7	125.0	124.5	123.2	122.0	120.8	119.6	118.1
100°	168.3	167.8	167.3	166.8	166.3	165.7	164.9	164.2	163.5	162.7	161.5
102.5°	213.7	213.9	214.1	214.4	214.6	214.4	213.7	212.9	212.2	211.4	209.7
105°	263.5	263.0	262.5	262.0	261.5	261.3	261.3	261.3	261.3	261.3	259.0
107.5°	314.4	314.6	314.9	315.1	315.4	315.1	314.4	313.7	312.9	312.2	311.2
110°	366.4	366.9	367.4	367.9	368.4	368.1	367.2	366.2	365.2	364.2	363.7



TEST NUMBER: P831775

CATALOG NUMBER: S123RDIP-S1000D1025U850-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	421.8	421.8	421.8	421.8	421.8	421.2	419.9	418.7	417.5	416.2	416.2
115°	471.6	471.8	472.1	472.3	472.6	472.6	472.3	472.1	471.8	471.6	472.1
117.5°	522.5	523.2	524.0	524.7	525.5	525.8	525.8	525.8	525.8	525.8	526.3
120°	576.8	577.2	577.7	578.2	578.7	579.1	579.3	579.6	579.8	580.1	581.3
122.5°	628.8	629.5	630.3	631.0	631.7	632.5	633.2	633.9	634.7	635.4	635.9
125°	680.8	681.8	682.8	683.8	684.7	685.7	686.7	687.7	688.7	689.7	690.2
127.5°	732.8	733.8	734.8	735.8	736.8	738.0	739.5	741.0	742.4	743.9	744.4
130°	783.8	785.5	787.2	788.9	790.7	792.0	793.0	794.0	795.0	795.9	796.7
132.5°	836.9	838.1	839.4	840.6	841.8	843.1	844.3	845.5	846.7	848.0	848.5
135°	892.3	892.7	893.2	893.7	894.2	895.0	895.9	896.9	897.9	898.9	899.1
137.5°	941.0	941.7	942.4	943.2	943.9	944.9	946.1	947.4	948.6	949.8	949.1
140°	988.6	990.3	992.0	993.7	995.5	996.4	996.7	996.9	997.2	997.4	997.2
142.5°	1037.3	1038.5	1039.7	1041.0	1042.2	1042.9	1043.2	1043.4	1043.7	1043.9	1043.4
145°	1083.8	1084.7	1085.7	1086.7	1087.7	1088.3	1088.6	1088.8	1089.1	1089.3	1088.6
147.5°	1125.8	1127.3	1128.8	1130.3	1131.7	1132.5	1132.5	1132.5	1132.5	1132.5	1131.7
150°	1165.7	1167.2	1168.6	1170.1	1171.6	1172.3	1172.3	1172.3	1172.3	1172.3	1171.8
152.5°	1204.4	1205.7	1206.9	1208.1	1209.4	1209.7	1209.2	1208.7	1208.2	1207.8	1207.5
155°	1238.7	1240.5	1242.2	1243.9	1245.6	1246.0	1245.0	1244.0	1243.1	1242.1	1241.8
157.5°	1270.9	1272.3	1273.8	1275.3	1276.8	1277.0	1276.0	1275.0	1274.0	1273.1	1272.8
160°	1301.8	1302.8	1303.8	1304.8	1305.8	1305.7	1304.4	1303.2	1302.0	1300.7	1300.7
162.5°	1325.1	1326.8	1328.5	1330.3	1332.0	1332.2	1331.0	1329.8	1328.5	1327.3	1327.1
165°	1347.2	1349.0	1350.7	1352.4	1354.1	1354.2	1352.8	1351.3	1349.8	1348.3	1348.3
167.5°	1367.2	1368.6	1370.1	1371.6	1373.1	1373.1	1371.6	1370.1	1368.6	1367.2	1366.9
170°	1381.6	1383.3	1385.0	1386.7	1388.4	1388.4	1386.7	1385.0	1383.3	1381.6	1381.6
172.5°	1392.6	1394.3	1396.1	1397.8	1399.5	1399.6	1398.2	1396.7	1395.2	1393.7	1393.7
175°	1400.4	1402.1	1403.8	1405.5	1407.3	1407.4	1405.9	1404.4	1403.0	1401.5	1401.5
177.5°	1404.8	1406.5	1408.2	1410.0	1411.7	1411.8	1410.3	1408.9	1407.4	1405.9	1405.9
180°	1409.2	1409.2	1409.2	1409.2	1409.2	1409.2	1409.2	1409.2	1409.2	1409.2	1409.2



TEST NUMBER: P831775

CATALOG NUMBER: S123RDIP-S1000D1025U850-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3598.7	3598.7	3598.7	3598.7	3598.7	3598.7	3598.7	3598.7	3598.7	3598.7	3598.7
2.5°	3820.8	3817.1	3781.7	3746.3	3711.6	3676.9	3651.1	3625.3	3581.8	3538.2	3510.9
5°	4057.6	4029.6	3973.5	3917.4	3833.3	3749.2	3678.4	3607.6	3517.6	3427.6	3352.3
7.5°	4189.7	4166.8	4098.9	4031.0	3919.6	3808.2	3697.6	3586.9	3454.1	3321.3	3207.7
10°	4193.4	4212.5	4156.5	4100.4	3975.0	3849.6	3699.1	3548.6	3370.0	3191.5	3044.7
12.5°	4062.0	4144.7	4132.9	4121.1	3993.4	3865.8	3682.8	3499.9	3280.8	3061.6	2877.9
15°	3816.4	3976.5	4023.7	4070.9	3965.4	3859.9	3651.8	3443.8	3186.3	2928.9	2717.9
17.5°	3499.9	3724.1	3848.8	3973.5	3896.8	3820.1	3592.1	3364.1	3074.2	2784.3	2554.8
20°	3125.1	3418.7	3614.2	3809.7	3781.7	3753.7	3518.3	3283.0	2970.2	2657.4	2408.7
22.5°	2754.7	3064.6	3334.6	3604.6	3633.4	3662.2	3424.6	3187.1	2844.8	2502.4	2249.4
25°	2435.3	2750.3	3072.0	3393.6	3458.6	3523.5	3297.7	3072.0	2717.1	2362.3	2110.7
27.5°	2130.6	2430.1	2784.3	3138.4	3256.4	3374.5	3167.9	2961.3	2591.7	2222.1	1971.3
30°	1882.0	2149.8	2511.3	2872.8	3037.3	3201.8	3012.2	2822.6	2456.0	2089.3	1843.6
32.5°	1650.3	1890.1	2253.1	2616.0	2807.1	2998.2	2834.4	2670.6	2318.0	1965.4	1722.6
35°	1467.4	1682.1	2020.7	2359.3	2573.3	2787.2	2652.9	2518.7	2174.1	1829.6	1600.2
37.5°	1310.2	1490.2	1808.2	2126.2	2353.4	2580.6	2468.5	2356.4	2032.5	1708.6	1491.7
40°	1180.4	1325.0	1620.8	1916.7	2139.5	2362.3	2266.4	2170.5	1880.5	1590.6	1387.7
42.5°	1069.0	1193.7	1459.3	1724.9	1929.2	2133.6	2070.1	2006.7	1744.0	1481.4	1293.3
45°	970.9	1075.6	1309.5	1543.4	1731.5	1919.6	1869.4	1819.3	1592.8	1366.3	1193.7
47.5°	883.8	973.8	1182.6	1391.4	1560.3	1729.3	1682.8	1636.3	1448.9	1261.5	1104.4
50°	804.1	880.9	1055.0	1229.1	1381.1	1533.0	1494.7	1456.3	1301.4	1146.5	1010.7
52.5°	728.9	792.3	948.7	1105.1	1227.6	1350.1	1320.6	1291.1	1171.5	1052.0	928.8
55°	657.3	715.6	847.7	979.7	1084.5	1189.2	1159.7	1130.2	1037.3	944.3	835.9
57.5°	592.4	643.3	750.3	857.3	940.6	1024.0	1010.0	996.0	918.5	841.0	751.8
60°	523.8	569.5	661.8	754.0	821.1	888.2	872.0	855.8	800.5	745.1	668.4
62.5°	462.6	503.1	576.9	650.7	705.3	759.9	748.1	736.3	694.2	652.2	588.7
65°	398.4	438.2	498.0	557.7	600.5	643.3	633.0	622.7	590.9	559.2	508.3
67.5°	340.1	373.3	424.9	476.6	505.4	534.1	528.2	522.3	498.0	473.6	433.8
70°	281.1	309.9	352.6	395.4	415.4	435.3	437.5	439.7	417.6	395.4	365.9
72.5°	222.1	244.9	284.8	324.6	340.1	355.6	354.9	354.1	340.8	327.6	301.0
75°	170.4	187.4	218.4	249.4	262.6	275.9	278.9	281.8	269.3	256.7	242.0
77.5°	122.5	134.3	157.9	181.5	196.2	211.0	212.5	213.9	208.0	202.1	188.1
80°	86.3	90.0	104.8	119.5	135.0	150.5	152.7	154.9	149.0	143.1	134.3
82.5°	59.8	62.0	67.1	72.3	84.8	97.4	100.3	103.3	100.3	97.4	87.8
85°	36.1	36.9	39.1	41.3	47.2	53.1	56.1	59.0	57.5	56.1	50.9
87.5°	16.2	16.2	17.0	17.7	19.2	20.7	24.3	28.0	25.8	23.6	21.4
90°	20.2	17.0	13.8	10.9	8.5	6.0	3.6	1.1	3.6	6.0	8.5
92.5°	43.5	42.1	40.6	39.1	37.6	36.2	34.7	33.2	34.7	36.2	37.6
95°	78.0	76.0	74.0	72.2	70.5	68.8	67.0	65.3	67.0	68.8	70.5
97.5°	116.6	115.1	113.7	112.3	111.1	109.8	108.6	107.4	108.6	109.8	111.1
100°	160.3	159.0	157.8	156.5	155.0	153.5	152.0	150.6	152.0	153.5	155.0
102.5°	208.0	206.3	204.6	203.3	202.6	201.8	201.1	200.4	201.1	201.8	202.6
105°	256.8	254.6	252.4	251.0	250.6	250.1	249.6	249.1	249.6	250.1	250.6
107.5°	310.2	309.2	308.2	307.6	307.4	307.1	306.9	306.6	306.9	307.1	307.4
110°	363.2	362.7	362.2	361.7	361.3	360.8	360.3	359.8	360.3	360.8	361.3



TEST NUMBER: P831775

CATALOG NUMBER: S123RDIP-S1000D1025U850-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	416.2	416.2	416.2	416.1	415.9	415.6	415.4	415.1	415.4	415.6	415.9
115°	472.6	473.1	473.6	473.4	472.7	472.0	471.2	470.5	471.2	472.0	472.7
117.5°	526.8	527.3	527.8	527.9	527.7	527.4	527.2	526.9	527.2	527.4	527.7
120°	582.5	583.8	585.0	584.9	583.4	581.9	580.4	579.0	580.4	581.9	583.4
122.5°	636.4	636.9	637.4	637.1	636.2	635.2	634.2	633.2	634.2	635.2	636.2
125°	690.7	691.1	691.6	691.5	690.8	690.0	689.3	688.6	689.3	690.0	690.8
127.5°	744.9	745.4	745.9	745.4	743.9	742.4	741.0	739.5	741.0	742.4	743.9
130°	797.4	798.2	798.9	798.3	796.3	794.3	792.4	790.4	792.4	794.3	796.3
132.5°	849.0	849.4	849.9	849.2	847.2	845.3	843.3	841.3	843.3	845.3	847.2
135°	899.4	899.6	899.9	899.3	897.8	896.3	894.8	893.4	894.8	896.3	897.8
137.5°	948.3	947.6	946.9	945.9	944.7	943.4	942.2	941.0	942.2	943.4	944.7
140°	996.9	996.7	996.4	995.7	994.5	993.2	992.0	990.8	992.0	993.2	994.5
142.5°	1042.9	1042.4	1041.9	1041.1	1039.9	1038.6	1037.4	1036.2	1037.4	1038.6	1039.9
145°	1087.8	1087.1	1086.3	1085.7	1085.2	1084.7	1084.3	1083.8	1084.3	1084.7	1085.2
147.5°	1131.0	1130.3	1129.5	1128.7	1127.7	1126.7	1125.7	1124.7	1125.7	1126.7	1127.7
150°	1171.3	1170.9	1170.4	1169.9	1169.4	1168.9	1168.4	1167.9	1168.4	1168.9	1169.4
152.5°	1207.3	1207.0	1206.8	1206.3	1205.5	1204.8	1204.1	1203.3	1204.1	1204.8	1205.5
155°	1241.6	1241.3	1241.1	1241.0	1241.0	1241.0	1241.0	1241.0	1241.0	1241.0	1241.0
157.5°	1272.6	1272.3	1272.1	1272.1	1272.3	1272.6	1272.8	1273.1	1272.8	1272.6	1272.3
160°	1300.7	1300.7	1300.7	1301.0	1301.5	1302.0	1302.5	1303.0	1302.5	1302.0	1301.5
162.5°	1326.8	1326.6	1326.3	1326.6	1327.3	1328.0	1328.8	1329.5	1328.8	1328.0	1327.3
165°	1348.3	1348.3	1348.3	1348.7	1349.4	1350.2	1350.9	1351.7	1350.9	1350.2	1349.4
167.5°	1366.7	1366.4	1366.2	1366.5	1367.5	1368.5	1369.5	1370.5	1369.5	1368.5	1367.5
170°	1381.6	1381.6	1381.6	1382.0	1383.0	1384.0	1385.0	1386.0	1385.0	1384.0	1383.0
172.5°	1393.7	1393.7	1393.7	1394.2	1395.2	1396.2	1397.2	1398.2	1397.2	1396.2	1395.2
175°	1401.5	1401.5	1401.5	1402.0	1403.0	1403.9	1404.9	1405.9	1404.9	1403.9	1403.0
177.5°	1405.9	1405.9	1405.9	1406.4	1407.4	1408.4	1409.4	1410.3	1409.4	1408.4	1407.4
180°	1409.2	1409.2	1409.2	1409.2	1409.2	1409.2	1409.2	1409.2	1409.2	1409.2	1409.2



TEST NUMBER: P831775

CATALOG NUMBER: S123RDIP-S1000D1025U850-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3598.7	3598.7	3598.7	3598.7	3598.7	3598.7	3598.7	3598.7	3598.7	3598.7	3598.7
2.5°	3483.6	3441.6	3399.5	3369.3	3339.0	3301.4	3263.8	3262.3	3260.8	3232.8	3204.8
5°	3277.1	3204.0	3131.0	3059.4	2987.9	2916.3	2844.8	2828.5	2812.3	2787.9	2763.6
7.5°	3094.1	2977.5	2861.0	2769.5	2678.0	2606.5	2534.9	2486.2	2437.5	2399.9	2362.3
10°	2897.9	2753.3	2608.7	2498.0	2387.3	2309.9	2232.4	2176.4	2120.3	2093.7	2067.2
12.5°	2694.3	2537.1	2380.0	2271.5	2163.1	2070.1	1977.2	1926.3	1875.4	1838.5	1801.6
15°	2506.9	2337.9	2169.0	2053.9	1938.8	1851.7	1764.7	1713.8	1662.9	1626.0	1589.1
17.5°	2325.4	2155.0	1984.5	1868.0	1751.4	1672.5	1593.5	1544.1	1494.7	1471.8	1448.9
20°	2160.1	1988.2	1816.3	1706.4	1596.5	1519.0	1441.6	1415.0	1388.4	1367.0	1345.6
22.5°	1996.3	1831.1	1665.8	1560.3	1454.8	1398.8	1342.7	1321.3	1299.9	1283.7	1267.4
25°	1859.1	1694.6	1530.1	1437.9	1345.6	1302.1	1258.6	1244.6	1230.6	1214.3	1198.1
27.5°	1720.4	1564.0	1407.6	1333.8	1260.1	1224.7	1189.2	1171.5	1153.8	1140.6	1127.3
30°	1598.0	1453.4	1308.8	1247.5	1186.3	1155.3	1124.3	1105.1	1086.0	1073.4	1060.9
32.5°	1479.9	1351.6	1223.2	1170.8	1118.4	1088.2	1057.9	1039.5	1021.0	1006.3	991.5
35°	1370.7	1259.3	1147.9	1100.0	1052.0	1021.8	991.5	973.1	954.6	939.9	925.1
37.5°	1274.8	1173.8	1072.7	1027.7	982.7	956.1	929.6	910.4	891.2	875.7	860.2
40°	1184.8	1095.6	1006.3	962.8	919.2	890.5	861.7	844.7	827.8	813.7	799.7
42.5°	1105.1	1023.3	941.4	898.6	855.8	828.5	801.2	781.3	761.4	753.2	745.1
45°	1021.0	948.7	876.4	835.1	793.8	765.0	736.3	719.3	702.3	695.0	687.6
47.5°	947.3	880.1	813.0	772.4	731.8	706.0	680.2	666.9	653.6	643.3	633.0
50°	875.0	810.0	745.1	706.0	666.9	644.8	622.7	606.4	590.2	582.8	575.4
52.5°	805.6	746.6	687.6	647.7	607.9	586.5	565.1	551.1	537.1	521.6	506.1
55°	727.4	675.8	624.1	588.7	553.3	531.2	509.0	492.8	476.6	460.4	444.1
57.5°	662.5	611.6	560.7	529.0	497.2	475.8	454.5	436.7	419.0	405.8	392.5
60°	591.7	547.4	503.1	472.2	441.2	420.5	399.9	382.9	365.9	359.3	352.6
62.5°	525.3	484.0	442.6	415.4	388.1	368.1	348.2	337.2	326.1	321.7	317.2
65°	457.4	422.0	386.6	361.5	336.4	319.4	302.5	297.3	292.1	288.5	284.8
67.5°	394.0	363.7	333.5	311.3	289.2	277.4	265.6	259.7	253.8	249.4	244.9
70°	336.4	309.9	283.3	264.1	244.9	233.9	222.8	217.6	212.5	204.4	196.2
72.5°	274.4	253.8	233.1	218.4	203.6	194.0	184.4	174.1	163.8	156.4	149.0
75°	227.2	206.6	185.9	171.9	157.9	146.8	135.7	132.1	128.4	126.2	123.9
77.5°	174.1	156.4	138.7	127.6	116.6	111.4	106.2	104.0	101.8	101.1	100.3
80°	125.4	110.7	95.9	90.0	84.1	82.6	81.2	79.7	78.2	77.5	76.7
82.5°	78.2	70.8	63.4	62.0	60.5	59.8	59.0	58.3	57.5	56.8	56.1
85°	45.7	42.8	39.8	39.1	38.4	37.6	36.9	36.9	36.9	36.9	36.9
87.5°	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	18.4	17.7
90°	10.9	13.8	17.0	20.2	23.4	26.6	27.6	28.5	29.5	30.5	31.2
92.5°	39.1	40.6	42.1	43.5	45.0	46.5	47.2	48.0	48.7	49.4	49.6
95°	72.2	74.0	76.0	78.0	80.0	81.9	82.9	83.9	84.9	85.9	86.3
97.5°	112.3	113.7	115.1	116.6	118.1	119.6	120.8	122.0	123.2	124.5	125.0
100°	156.5	157.8	159.0	160.3	161.5	162.7	163.5	164.2	164.9	165.7	166.3
102.5°	203.3	204.6	206.3	208.0	209.7	211.4	212.2	212.9	213.7	214.4	214.6
105°	251.0	252.4	254.6	256.8	259.0	261.3	261.3	261.3	261.3	261.3	261.5
107.5°	307.6	308.2	309.2	310.2	311.2	312.2	312.9	313.7	314.4	315.1	315.4
110°	361.7	362.2	362.7	363.2	363.7	364.2	365.2	366.2	367.2	368.1	368.4



TEST NUMBER: P831775

CATALOG NUMBER: S123RDIP-S1000D1025U850-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	416.1	416.2	416.2	416.2	416.2	416.2	417.5	418.7	419.9	421.2	421.8
115°	473.4	473.6	473.1	472.6	472.1	471.6	471.8	472.1	472.3	472.6	472.6
117.5°	527.9	527.8	527.3	526.8	526.3	525.8	525.8	525.8	525.8	525.8	525.5
120°	584.9	585.0	583.8	582.5	581.3	580.1	579.8	579.6	579.3	579.1	578.7
122.5°	637.1	637.4	636.9	636.4	635.9	635.4	634.7	633.9	633.2	632.5	631.7
125°	691.5	691.6	691.1	690.7	690.2	689.7	688.7	687.7	686.7	685.7	684.7
127.5°	745.4	745.9	745.4	744.9	744.4	743.9	742.4	741.0	739.5	738.0	736.8
130°	798.3	798.9	798.2	797.4	796.7	795.9	795.0	794.0	793.0	792.0	790.7
132.5°	849.2	849.9	849.4	849.0	848.5	848.0	846.7	845.5	844.3	843.1	841.8
135°	899.3	899.9	899.6	899.4	899.1	898.9	897.9	896.9	895.9	895.0	894.2
137.5°	945.9	946.9	947.6	948.3	949.1	949.8	948.6	947.4	946.1	944.9	943.9
140°	995.7	996.4	996.7	996.9	997.2	997.4	997.2	996.9	996.7	996.4	995.5
142.5°	1041.1	1041.9	1042.4	1042.9	1043.4	1043.9	1043.7	1043.4	1043.2	1042.9	1042.2
145°	1085.7	1086.3	1087.1	1087.8	1088.6	1089.3	1089.1	1088.8	1088.6	1088.3	1087.7
147.5°	1128.7	1129.5	1130.3	1131.0	1131.7	1132.5	1132.5	1132.5	1132.5	1132.5	1131.7
150°	1169.9	1170.4	1170.9	1171.3	1171.8	1172.3	1172.3	1172.3	1172.3	1172.3	1171.6
152.5°	1206.3	1206.8	1207.0	1207.3	1207.5	1207.8	1208.2	1208.7	1209.2	1209.7	1209.4
155°	1241.0	1241.1	1241.3	1241.6	1241.8	1242.1	1243.1	1244.0	1245.0	1246.0	1245.6
157.5°	1272.1	1272.1	1272.3	1272.6	1272.8	1273.1	1274.0	1275.0	1276.0	1277.0	1276.8
160°	1301.0	1300.7	1300.7	1300.7	1300.7	1300.7	1302.0	1303.2	1304.4	1305.7	1305.8
162.5°	1326.6	1326.3	1326.6	1326.8	1327.1	1327.3	1328.5	1329.8	1331.0	1332.2	1332.0
165°	1348.7	1348.3	1348.3	1348.3	1348.3	1348.3	1349.8	1351.3	1352.8	1354.2	1354.1
167.5°	1366.5	1366.2	1366.4	1366.7	1366.9	1367.2	1368.6	1370.1	1371.6	1373.1	1373.1
170°	1382.0	1381.6	1381.6	1381.6	1381.6	1381.6	1383.3	1385.0	1386.7	1388.4	1388.4
172.5°	1394.2	1393.7	1393.7	1393.7	1393.7	1393.7	1395.2	1396.7	1398.2	1399.6	1399.5
175°	1402.0	1401.5	1401.5	1401.5	1401.5	1401.5	1403.0	1404.4	1405.9	1407.4	1407.3
177.5°	1406.4	1405.9	1405.9	1405.9	1405.9	1405.9	1407.4	1408.9	1410.3	1411.8	1411.7
180°	1409.2	1409.2	1409.2	1409.2	1409.2	1409.2	1409.2	1409.2	1409.2	1409.2	1409.2



TEST NUMBER: P831775

CATALOG NUMBER: S123RDIP-S1000D1025U850-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	3598.7	3598.7	3598.7	3598.7
2.5°	3197.4	3190.0	3187.1	3184.1
5°	2740.7	2717.9	2712.7	2707.5
7.5°	2352.7	2343.1	2311.4	2279.6
10°	2037.7	2008.1	1994.9	1981.6
12.5°	1774.3	1747.0	1742.6	1738.1
15°	1569.9	1550.7	1544.1	1537.5
17.5°	1435.7	1422.4	1414.3	1406.1
20°	1336.1	1326.5	1320.6	1314.7
22.5°	1260.1	1252.7	1248.3	1243.8
25°	1187.0	1176.0	1172.3	1168.6
27.5°	1117.7	1108.1	1104.4	1100.7
30°	1052.8	1044.6	1039.5	1034.3
32.5°	981.9	972.4	969.4	966.4
35°	919.2	913.3	910.4	907.4
37.5°	852.8	845.5	841.0	836.6
40°	796.0	792.3	790.1	787.9
42.5°	738.5	731.8	731.1	730.4
45°	680.9	674.3	672.8	671.3
47.5°	627.1	621.2	620.4	619.7
50°	567.3	559.2	553.3	547.4
52.5°	498.7	491.3	486.2	481.0
55°	436.0	427.9	423.5	419.0
57.5°	388.8	385.1	382.9	380.7
60°	350.4	348.2	346.7	345.3
62.5°	315.0	312.8	312.8	312.8
65°	282.6	280.3	278.1	275.9
67.5°	240.5	236.1	235.3	234.6
70°	189.6	183.0	182.2	181.5
72.5°	148.3	147.5	146.1	144.6
75°	122.5	121.0	121.0	121.0
77.5°	98.9	97.4	97.4	97.4
80°	76.0	75.3	76.0	76.7
82.5°	56.1	56.1	55.3	54.6
85°	36.1	35.4	35.4	35.4
87.5°	17.7	17.7	17.7	17.7
90°	31.7	32.2	32.7	33.2
92.5°	49.1	48.6	48.1	47.6
95°	86.3	86.3	86.3	86.3
97.5°	124.7	124.5	124.2	124.0
100°	166.8	167.3	167.8	168.3
102.5°	214.4	214.1	213.9	213.7
105°	262.0	262.5	263.0	263.5
107.5°	315.1	314.9	314.6	314.4
110°	367.9	367.4	366.9	366.4



TEST NUMBER: P831775

CATALOG NUMBER: S123RDIP-S1000D1025U850-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
112.5°	421.8	421.8	421.8	421.8
115°	472.3	472.1	471.8	471.6
117.5°	524.7	524.0	523.2	522.5
120°	578.2	577.7	577.2	576.8
122.5°	631.0	630.3	629.5	628.8
125°	683.8	682.8	681.8	680.8
127.5°	735.8	734.8	733.8	732.8
130°	788.9	787.2	785.5	783.8
132.5°	840.6	839.4	838.1	836.9
135°	893.7	893.2	892.7	892.3
137.5°	943.2	942.4	941.7	941.0
140°	993.7	992.0	990.3	988.6
142.5°	1041.0	1039.7	1038.5	1037.3
145°	1086.7	1085.7	1084.7	1083.8
147.5°	1130.3	1128.8	1127.3	1125.8
150°	1170.1	1168.6	1167.2	1165.7
152.5°	1208.1	1206.9	1205.7	1204.4
155°	1243.9	1242.2	1240.5	1238.7
157.5°	1275.3	1273.8	1272.3	1270.9
160°	1304.8	1303.8	1302.8	1301.8
162.5°	1330.3	1328.5	1326.8	1325.1
165°	1352.4	1350.7	1349.0	1347.2
167.5°	1371.6	1370.1	1368.6	1367.2
170°	1386.7	1385.0	1383.3	1381.6
172.5°	1397.8	1396.1	1394.3	1392.6
175°	1405.5	1403.8	1402.1	1400.4
177.5°	1410.0	1408.2	1406.5	1404.8
180°	1409.2	1409.2	1409.2	1409.2



TEST NUMBER: P831775

CATALOG NUMBER: S123RDIP-S1000D1025U850-4F0-1E-UDD-G1

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	13.91	14.76	14.84	15.69	16.89	18.57	19.42	19.50	20.36	21.56
	3H	15.13	15.89	16.07	16.83	18.06	20.07	20.83	21.01	21.78	23.00
	4H	15.52	16.23	16.47	17.18	18.42	20.57	21.28	21.52	22.23	23.46
	6H	15.80	16.46	16.76	17.41	18.66	20.88	21.54	21.84	22.49	23.74
	8H	15.89	16.51	16.85	17.48	18.73	20.96	21.58	21.93	22.55	23.80
	12H	15.94	16.53	16.91	17.50	18.77	20.99	21.58	21.96	22.55	23.82
4H	2H	14.64	15.35	15.59	16.30	17.53	18.57	19.29	19.53	20.23	21.47
	3H	16.01	16.60	16.97	17.58	18.83	20.23	20.82	21.20	21.80	23.05
	4H	16.46	17.00	17.44	17.98	19.25	20.84	21.38	21.81	22.35	23.63
	6H	16.83	17.30	17.82	18.29	19.57	21.28	21.74	22.26	22.74	24.01
	8H	16.96	17.39	17.94	18.38	19.67	21.41	21.84	22.40	22.83	24.12
	12H	17.03	17.42	18.04	18.43	19.72	21.47	21.86	22.48	22.87	24.16
8H	4H	16.78	17.21	17.77	18.20	19.49	20.81	21.24	21.79	22.23	23.52
	6H	17.24	17.60	18.25	18.63	19.92	21.30	21.66	22.32	22.69	23.98
	8H	17.44	17.75	18.46	18.77	20.07	21.49	21.80	22.51	22.82	24.13
	12H	17.58	17.85	18.60	18.86	20.21	21.61	21.88	22.63	22.89	24.24
12H	4H	16.79	17.18	17.80	18.19	19.48	20.76	21.15	21.76	22.15	23.45
	6H	17.30	17.62	18.32	18.63	19.94	21.28	21.59	22.30	22.61	23.92
	8H	17.52	17.80	18.54	18.81	20.16	21.47	21.75	22.50	22.76	24.11