

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: P832180

Luminaire Tested: S123RDIP-S560D1025U850-4F0-1E-UDD-G1

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P832180
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-S560D1025U850-4F0-1E-UDD-G1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 560 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 1025 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: -

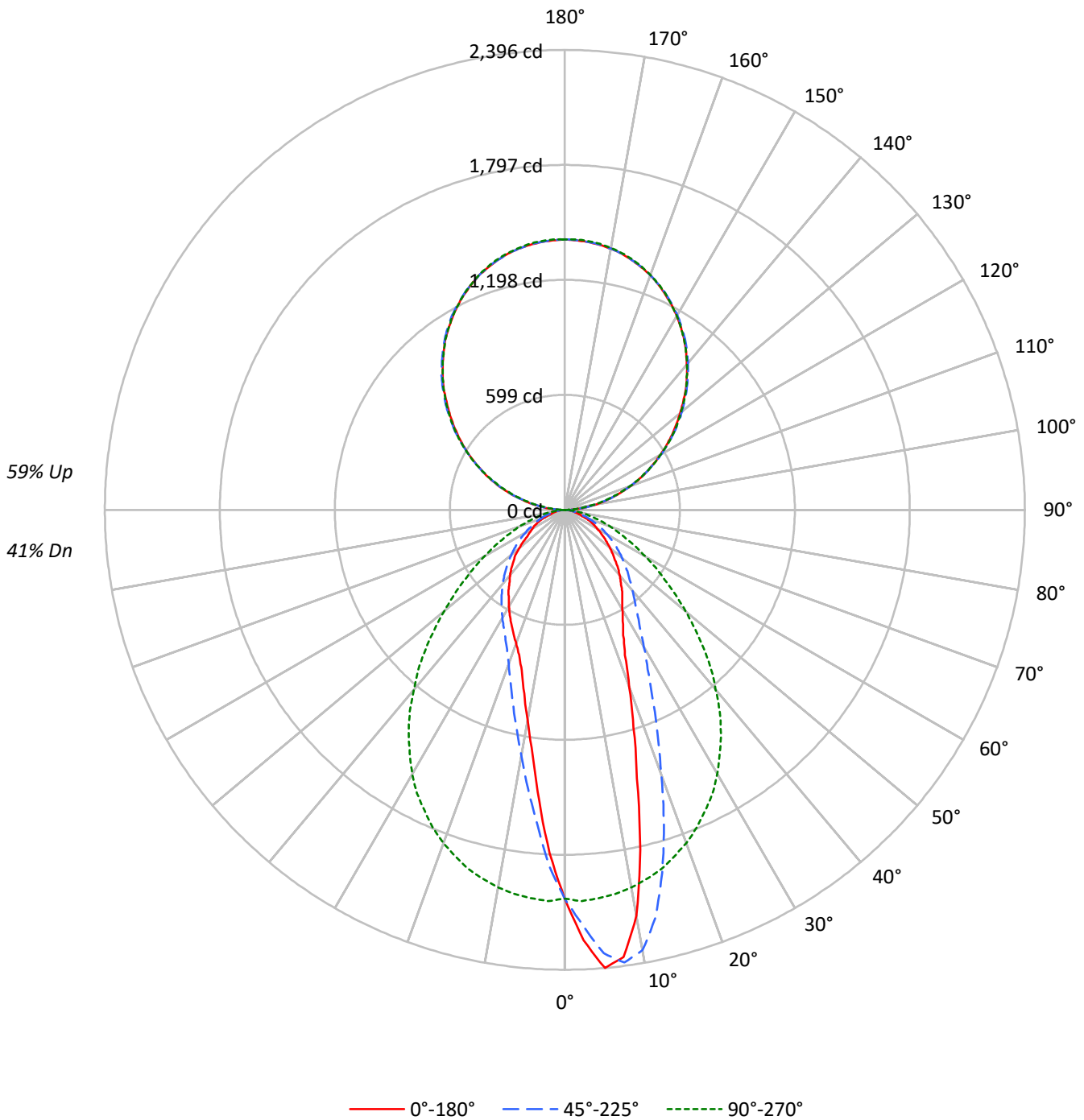
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6593.1 lumens
Efficiency: N/A
Efficacy: 144.9 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): 45.5
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: P832180
CATALOG NUMBER: S123RDIP-S560D1025U850-4F0-1E-UDD-G1

Luminous Intensity Polar Plot





TEST NUMBER: P832180

CATALOG NUMBER: S123RDIP-S560D1025U850-4F0-1E-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	105	105	105	105	96	96	96	96	78	78	78	62	62	62	48	48	48	41				41
1	96	92	89	85	88	84	81	79	69	67	65	56	54	53	43	42	41	36				36
2	88	81	76	71	80	75	70	66	62	58	55	50	47	45	39	37	36	31				31
3	81	72	65	60	74	66	60	56	55	51	47	45	42	39	35	33	31	27				27
4	74	64	57	51	68	59	53	48	49	45	41	40	37	34	32	30	28	24				24
5	69	58	50	45	63	53	47	42	45	40	36	37	33	30	29	27	25	21				21
6	63	52	44	39	58	48	41	37	40	35	32	33	30	27	27	24	22	19				19
7	59	47	40	35	54	44	37	32	37	32	28	31	27	24	25	22	20	18				18
8	55	43	36	31	50	40	34	29	34	29	25	28	25	22	23	20	18	16				16
9	51	40	33	28	47	37	30	26	31	26	23	26	23	20	21	19	17	15				15
10	48	36	30	25	44	34	28	24	29	24	21	24	21	18	20	17	16	14				14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	21801	21801	21801	21801	21801
5°	25887	25061	21939	17735	16466
10°	23455	25456	21829	14210	12190
15°	16148	21826	21599	11614	9643
20°	11234	16804	21165	9793	8475
25°	8561	12807	20535	8704	7811
30°	7452	10239	19745	8081	7235
35°	6842	8637	18628	7557	6711
40°	6243	7713	17165	7043	6232
45°	5638	7054	15586	6555	5751
50°	5117	6507	13725	6077	5159
55°	4628	5977	11937	5611	4425
60°	4148	5436	10370	5096	4183
65°	3828	4821	8925	4579	3955
70°	3109	4170	7789	4142	3213
75°	2728	3315	6596	3435	2832
80°	2473	2808	5405	2882	2678
85°	2260	2458	4100	2618	2458

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 80°
 Vertical Angle: 45°
 Luminance: 16446 cd/sqm



TEST NUMBER: P832180

CATALOG NUMBER: S123RDIP-S560D1025U850-4F0-1E-UDD-G1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.6	2.8
10°-20°	427.2	6.5
20°-30°	490.1	7.4
30°-40°	483.1	7.3
40°-50°	426.0	6.5
50°-60°	327.8	5.0
60°-70°	215.5	3.3
70°-80°	104.7	1.6
80°-90°	29.4	0.4
90°-100°	90.7	1.4
100°-110°	274.6	4.2
110°-120°	467.4	7.1
120°-130°	614.9	9.3
130°-140°	691.2	10.5
140°-150°	679.5	10.3
150°-160°	572.1	8.7
160°-170°	380.9	5.8
170°-180°	133.4	2.0
0°-30°	1102.0	16.7
0°-40°	1585.1	24.0
0°-60°	2338.9	35.5
0°-90°	2688.4	40.8
90°-120°	832.7	12.6
90°-150°	2818.3	42.7
90°-180°	3905.0	59.2
0°-180°	6593.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2025	2025	2025	2025	2025	
5°	2396	2319	2030	1641	1524	219
15°	1449	1959	1938	1042	865	409
25°	721	1078	1729	733	658	340
35°	521	657	1418	575	511	325
45°	370	463	1024	431	378	288
55°	247	318	636	299	236	221
65°	150	189	350	180	155	147
75°	66	80	159	83	68	71
85°	18	20	33	21	20	19
90°	33	27	1	27	33	17
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: P832180

CATALOG NUMBER: S123RDIP-S560D1025U850-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2025.4	2025.4	2025.4	2025.4	2025.4	2025.4	2025.4	2025.4	2025.4	2025.4	2025.4
2.5°	2244.7	2237.6	2230.6	2228.5	2226.4	2219.8	2213.1	2198.2	2183.2	2167.9	2152.5
5°	2395.8	2396.6	2397.5	2395.4	2393.3	2384.6	2375.9	2357.6	2339.3	2319.4	2299.5
7.5°	2349.3	2362.6	2375.9	2378.4	2380.9	2387.5	2394.2	2390.0	2385.8	2378.4	2370.9
10°	2145.9	2145.0	2144.2	2159.1	2174.1	2218.5	2262.9	2285.8	2308.6	2329.0	2349.3
12.5°	1813.7	1814.9	1816.2	1865.2	1914.2	1956.1	1998.0	2056.2	2114.3	2177.0	2239.7
15°	1449.1	1469.5	1489.8	1533.4	1577.0	1640.1	1703.2	1781.3	1859.4	1958.6	2057.8
17.5°	1190.0	1198.7	1207.5	1249.4	1291.3	1351.1	1410.9	1499.4	1587.8	1715.7	1843.6
20°	980.7	988.6	996.5	1026.8	1057.1	1114.4	1171.7	1256.0	1340.3	1467.0	1593.6
22.5°	818.8	834.2	849.5	869.9	890.2	931.8	973.3	1059.2	1145.2	1260.6	1376.0
25°	720.8	727.9	734.9	752.4	769.8	809.7	849.5	906.4	963.3	1078.3	1193.3
27.5°	654.4	656.5	658.5	671.4	684.3	710.0	735.8	788.5	841.2	935.9	1030.6
30°	599.6	603.3	607.1	617.0	627.0	645.7	664.4	701.7	739.1	823.8	908.5
32.5°	557.2	559.3	561.4	569.7	578.0	591.7	605.4	634.9	664.4	729.1	793.9
35°	520.7	521.1	521.5	527.7	534.0	547.3	560.5	585.0	609.5	657.3	705.0
37.5°	479.2	482.1	485.0	489.5	494.1	505.7	517.4	537.3	557.2	596.7	636.1
40°	444.3	446.8	449.3	454.7	460.1	469.2	478.3	496.6	514.9	548.9	583.0
42.5°	409.4	411.1	412.7	418.1	423.5	434.7	445.9	460.5	475.0	503.2	531.5
45°	370.4	374.5	378.7	384.5	390.3	399.9	409.4	424.4	439.3	463.4	487.5
47.5°	338.0	340.1	342.1	347.1	352.1	363.7	375.4	388.6	401.9	424.4	446.8
50°	305.6	306.4	307.3	311.8	316.4	326.8	337.2	352.5	367.9	388.6	409.4
52.5°	274.9	277.0	279.0	283.6	288.2	295.2	302.3	318.1	333.8	354.2	374.5
55°	246.6	247.9	249.1	252.5	255.8	264.1	272.4	286.1	299.8	318.5	337.2
57.5°	220.1	221.7	223.4	225.9	228.4	235.8	243.3	255.4	267.4	286.1	304.8
60°	192.7	194.7	196.8	199.7	202.6	208.4	214.3	225.0	235.8	252.5	269.1
62.5°	172.7	173.1	173.6	176.1	178.5	182.7	186.8	195.6	204.3	220.9	237.5
65°	150.3	151.6	152.8	154.0	155.3	158.6	161.9	169.4	176.9	189.3	201.8
67.5°	127.1	128.3	129.5	131.6	133.7	136.6	139.5	144.5	149.5	161.1	172.7
70°	98.8	98.8	98.8	102.1	105.5	110.4	115.4	119.2	122.9	132.5	142.0
72.5°	80.6	81.0	81.4	81.8	82.2	85.1	88.0	94.3	100.5	106.3	112.1
75°	65.6	66.0	66.4	66.9	67.3	68.1	68.9	71.0	73.1	79.7	86.4
77.5°	52.3	52.7	53.1	53.6	54.0	54.8	55.6	56.5	57.3	59.8	62.3
80°	39.9	40.3	40.7	41.1	41.5	41.9	42.4	43.2	44.0	45.3	46.5
82.5°	29.1	29.1	29.1	29.1	29.1	29.9	30.7	30.7	30.7	31.6	32.4
85°	18.3	18.3	18.3	18.7	19.1	19.1	19.1	19.5	19.9	19.9	19.9
87.5°	8.3	7.9	7.5	7.9	8.3	8.3	8.3	8.7	9.1	9.1	9.1
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: P832180

CATALOG NUMBER: S123RDIP-S560D1025U850-4F0-1E-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: P832180

CATALOG NUMBER: S123RDIP-S560D1025U850-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2025.4	2025.4	2025.4	2025.4	2025.4	2025.4	2025.4	2025.4	2025.4	2025.4	2025.4
2.5°	2150.4	2148.3	2128.4	2108.5	2089.0	2069.5	2054.9	2040.4	2015.9	1991.4	1976.0
5°	2283.7	2267.9	2236.4	2204.8	2157.5	2110.1	2070.3	2030.4	1979.8	1929.1	1886.8
7.5°	2358.0	2345.2	2307.0	2268.8	2206.1	2143.4	2081.1	2018.8	1944.1	1869.3	1805.4
10°	2360.1	2370.9	2339.3	2307.8	2237.2	2166.6	2081.9	1997.2	1896.7	1796.2	1713.6
12.5°	2286.2	2332.7	2326.1	2319.4	2247.6	2175.7	2072.8	1969.8	1846.5	1723.2	1619.8
15°	2147.9	2238.0	2264.6	2291.2	2231.8	2172.4	2055.3	1938.2	1793.3	1648.4	1529.7
17.5°	1969.8	2096.0	2166.2	2236.4	2193.2	2150.0	2021.7	1893.4	1730.2	1567.0	1437.9
20°	1758.9	1924.1	2034.2	2144.2	2128.4	2112.6	1980.2	1847.7	1671.7	1495.6	1355.7
22.5°	1550.4	1724.8	1876.8	2028.8	2045.0	2061.1	1927.4	1793.7	1601.1	1408.4	1266.0
25°	1370.6	1547.9	1729.0	1910.0	1946.5	1983.1	1856.0	1729.0	1529.3	1329.5	1187.9
27.5°	1199.2	1367.7	1567.0	1766.3	1832.8	1899.2	1783.0	1666.7	1458.7	1250.6	1109.5
30°	1059.2	1209.9	1413.4	1616.9	1709.5	1802.1	1695.3	1588.6	1382.3	1175.9	1037.6
32.5°	928.8	1063.8	1268.1	1472.4	1579.9	1687.5	1595.3	1503.1	1304.6	1106.1	969.5
35°	825.9	946.7	1137.3	1327.9	1448.3	1568.7	1493.1	1417.6	1223.7	1029.7	900.6
37.5°	737.4	838.7	1017.7	1196.7	1324.5	1452.4	1389.3	1326.2	1143.9	961.6	839.6
40°	664.4	745.7	912.2	1078.7	1204.1	1329.5	1275.6	1221.6	1058.4	895.2	781.0
42.5°	601.7	671.8	821.3	970.8	1085.8	1200.8	1165.1	1129.4	981.6	833.8	727.9
45°	546.4	605.4	737.0	868.6	974.5	1080.4	1052.2	1023.9	896.5	769.0	671.8
47.5°	497.4	548.1	665.6	783.1	878.2	973.3	947.1	921.0	815.5	710.0	621.6
50°	452.6	495.8	593.8	691.8	777.3	862.8	841.2	819.6	732.4	645.3	568.9
52.5°	410.2	445.9	534.0	622.0	690.9	759.9	743.2	726.6	659.4	592.1	522.8
55°	370.0	402.8	477.1	551.4	610.4	669.3	652.7	636.1	583.8	531.5	470.4
57.5°	333.4	362.1	422.3	482.5	529.4	576.3	568.4	560.5	516.9	473.3	423.1
60°	294.8	320.5	372.5	424.4	462.1	499.9	490.8	481.7	450.5	419.4	376.2
62.5°	260.3	283.2	324.7	366.2	396.9	427.7	421.0	414.4	390.7	367.1	331.3
65°	224.2	246.6	280.3	313.9	338.0	362.1	356.3	350.4	332.6	314.7	286.1
67.5°	191.4	210.1	239.2	268.2	284.4	300.6	297.3	294.0	280.3	266.6	244.1
70°	158.2	174.4	198.5	222.6	233.8	245.0	246.2	247.5	235.0	222.6	205.9
72.5°	125.0	137.9	160.3	182.7	191.4	200.1	199.7	199.3	191.8	184.4	169.4
75°	95.9	105.5	122.9	140.3	147.8	155.3	157.0	158.6	151.6	144.5	136.2
77.5°	68.9	75.6	88.9	102.1	110.4	118.8	119.6	120.4	117.1	113.8	105.9
80°	48.6	50.7	59.0	67.3	76.0	84.7	86.0	87.2	83.9	80.6	75.6
82.5°	33.6	34.9	37.8	40.7	47.8	54.8	56.5	58.1	56.5	54.8	49.4
85°	20.3	20.8	22.0	23.3	26.6	29.9	31.6	33.2	32.4	31.6	28.7
87.5°	9.1	9.1	9.6	10.0	10.8	11.6	13.7	15.8	14.5	13.3	12.0
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: P832180

CATALOG NUMBER: S123RDIP-S560D1025U850-4F0-1E-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: P832180

CATALOG NUMBER: S123RDIP-S560D1025U850-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2025.4	2025.4	2025.4	2025.4	2025.4	2025.4	2025.4	2025.4	2025.4	2025.4	2025.4
2.5°	1960.7	1937.0	1913.3	1896.3	1879.3	1858.1	1836.9	1836.1	1835.3	1819.5	1803.7
5°	1844.4	1803.3	1762.2	1721.9	1681.6	1641.4	1601.1	1592.0	1582.8	1569.1	1555.4
7.5°	1741.4	1675.8	1610.2	1558.7	1507.2	1467.0	1426.7	1399.3	1371.9	1350.7	1329.5
10°	1631.0	1549.6	1468.2	1405.9	1343.6	1300.1	1256.5	1224.9	1193.3	1178.4	1163.4
12.5°	1516.4	1427.9	1339.5	1278.5	1217.4	1165.1	1112.8	1084.1	1055.5	1034.7	1014.0
15°	1410.9	1315.8	1220.7	1156.0	1091.2	1042.2	993.2	964.6	935.9	915.1	894.4
17.5°	1308.8	1212.9	1116.9	1051.3	985.7	941.3	896.9	869.1	841.2	828.4	815.5
20°	1215.8	1119.0	1022.3	960.4	898.5	854.9	811.3	796.4	781.4	769.4	757.4
22.5°	1123.6	1030.6	937.6	878.2	818.8	787.3	755.7	743.7	731.6	722.5	713.3
25°	1046.4	953.8	861.2	809.3	757.4	732.9	708.4	700.5	692.6	683.5	674.3
27.5°	968.3	880.3	792.2	750.7	709.2	689.3	669.3	659.4	649.4	641.9	634.5
30°	899.4	818.0	736.6	702.1	667.7	650.2	632.8	622.0	611.2	604.1	597.1
32.5°	832.9	760.7	688.4	659.0	629.5	612.4	595.4	585.0	574.7	566.4	558.1
35°	771.5	708.8	646.1	619.1	592.1	575.1	558.1	547.7	537.3	529.0	520.7
37.5°	717.5	660.6	603.7	578.4	553.1	538.1	523.2	512.4	501.6	492.9	484.1
40°	666.8	616.6	566.4	541.9	517.4	501.2	485.0	475.4	465.9	458.0	450.1
42.5°	622.0	575.9	529.8	505.7	481.7	466.3	450.9	439.7	428.5	423.9	419.4
45°	574.7	534.0	493.3	470.0	446.8	430.6	414.4	404.8	395.3	391.1	387.0
47.5°	533.1	495.4	457.6	434.7	411.9	397.4	382.8	375.4	367.9	362.1	356.3
50°	492.5	455.9	419.4	397.4	375.4	362.9	350.4	341.3	332.2	328.0	323.9
52.5°	453.4	420.2	387.0	364.6	342.1	330.1	318.1	310.2	302.3	293.6	284.8
55°	409.4	380.3	351.3	331.3	311.4	299.0	286.5	277.4	268.2	259.1	250.0
57.5°	372.9	344.2	315.6	297.7	279.9	267.8	255.8	245.8	235.8	228.4	220.9
60°	333.0	308.1	283.2	265.7	248.3	236.7	225.0	215.5	205.9	202.2	198.5
62.5°	295.6	272.4	249.1	233.8	218.4	207.2	196.0	189.8	183.5	181.0	178.5
65°	257.4	237.5	217.6	203.5	189.3	179.8	170.2	167.3	164.4	162.4	160.3
67.5°	221.7	204.7	187.7	175.2	162.8	156.1	149.5	146.2	142.8	140.3	137.9
70°	189.3	174.4	159.4	148.6	137.9	131.6	125.4	122.5	119.6	115.0	110.4
72.5°	154.5	142.8	131.2	122.9	114.6	109.2	103.8	98.0	92.2	88.0	83.9
75°	127.9	116.3	104.6	96.7	88.9	82.6	76.4	74.3	72.2	71.0	69.8
77.5°	98.0	88.0	78.1	71.8	65.6	62.7	59.8	58.5	57.3	56.9	56.5
80°	70.6	62.3	54.0	50.7	47.3	46.5	45.7	44.8	44.0	43.6	43.2
82.5°	44.0	39.9	35.7	34.9	34.0	33.6	33.2	32.8	32.4	32.0	31.6
85°	25.7	24.1	22.4	22.0	21.6	21.2	20.8	20.8	20.8	20.8	20.8
87.5°	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.4	10.0
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: P832180

CATALOG NUMBER: S123RDIP-S560D1025U850-4F0-1E-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: P832180

CATALOG NUMBER: S123RDIP-S560D1025U850-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2025.4	2025.4	2025.4	2025.4
2.5°	1799.6	1795.4	1793.7	1792.1
5°	1542.5	1529.7	1526.8	1523.9
7.5°	1324.1	1318.7	1300.9	1283.0
10°	1146.8	1130.2	1122.8	1115.3
12.5°	998.6	983.2	980.7	978.3
15°	883.6	872.8	869.1	865.3
17.5°	808.0	800.5	796.0	791.4
20°	752.0	746.6	743.2	739.9
22.5°	709.2	705.0	702.6	700.1
25°	668.1	661.9	659.8	657.7
27.5°	629.1	623.7	621.6	619.5
30°	592.5	588.0	585.0	582.1
32.5°	552.7	547.3	545.6	543.9
35°	517.4	514.0	512.4	510.7
37.5°	480.0	475.8	473.3	470.9
40°	448.0	445.9	444.7	443.5
42.5°	415.6	411.9	411.5	411.1
45°	383.2	379.5	378.7	377.8
47.5°	352.9	349.6	349.2	348.8
50°	319.3	314.7	311.4	308.1
52.5°	280.7	276.5	273.6	270.7
55°	245.4	240.8	238.3	235.8
57.5°	218.8	216.7	215.5	214.3
60°	197.2	196.0	195.2	194.3
62.5°	177.3	176.1	176.1	176.1
65°	159.0	157.8	156.5	155.3
67.5°	135.4	132.9	132.5	132.0
70°	106.7	103.0	102.6	102.1
72.5°	83.5	83.0	82.2	81.4
75°	68.9	68.1	68.1	68.1
77.5°	55.6	54.8	54.8	54.8
80°	42.8	42.4	42.8	43.2
82.5°	31.6	31.6	31.1	30.7
85°	20.3	19.9	19.9	19.9
87.5°	10.0	10.0	10.0	10.0
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: P832180

CATALOG NUMBER: S123RDIP-S560D1025U850-4F0-1E-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: P832180

CATALOG NUMBER: S123RDIP-S560D1025U850-4F0-1E-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	10.52	11.26	11.56	12.30	13.71	15.18	15.93	16.23	16.97	18.37
	3H	11.73	12.40	12.79	13.45	14.87	16.68	17.34	17.73	18.39	19.81
	4H	12.11	12.74	13.18	13.79	15.22	17.16	17.79	18.23	18.84	20.27
	6H	12.39	12.97	13.46	14.02	15.46	17.47	18.05	18.54	19.10	20.54
	8H	12.48	13.02	13.55	14.10	15.53	17.55	18.10	18.62	19.17	20.60
	12H	12.52	13.05	13.61	14.11	15.57	17.58	18.10	18.66	19.16	20.62
4H	2H	11.23	11.86	12.30	12.91	14.34	15.17	15.80	16.24	16.85	18.28
	3H	12.59	13.12	13.67	14.20	15.64	16.82	17.34	17.90	18.42	19.86
	4H	13.05	13.52	14.13	14.60	16.06	17.42	17.90	18.51	18.97	20.43
	6H	13.41	13.82	14.50	14.91	16.37	17.86	18.27	18.95	19.36	20.82
	8H	13.53	13.92	14.62	15.00	16.47	17.99	18.37	19.08	19.45	20.93
	12H	13.61	13.95	14.71	15.05	16.53	18.04	18.39	19.15	19.49	20.96
8H	4H	13.35	13.74	14.45	14.82	16.29	17.38	17.77	18.47	18.85	20.32
	6H	13.82	14.13	14.93	15.26	16.73	17.88	18.19	18.99	19.32	20.79
	8H	14.01	14.28	15.13	15.40	16.88	18.06	18.34	19.18	19.45	20.94
	12H	14.15	14.39	15.27	15.49	17.02	18.18	18.42	19.30	19.52	21.05
12H	4H	13.36	13.71	14.47	14.81	16.28	17.33	17.68	18.44	18.78	20.25
	6H	13.87	14.15	14.99	15.26	16.75	17.85	18.13	18.97	19.24	20.73
	8H	14.09	14.33	15.21	15.44	16.96	18.04	18.28	19.16	19.39	20.92