

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P243438

Luminaire Tested: S123RDRP-H1165D840-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243438
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-69)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-H1165D840-X4F0-XX-UDD-A-W
Description: DEFINE 3 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

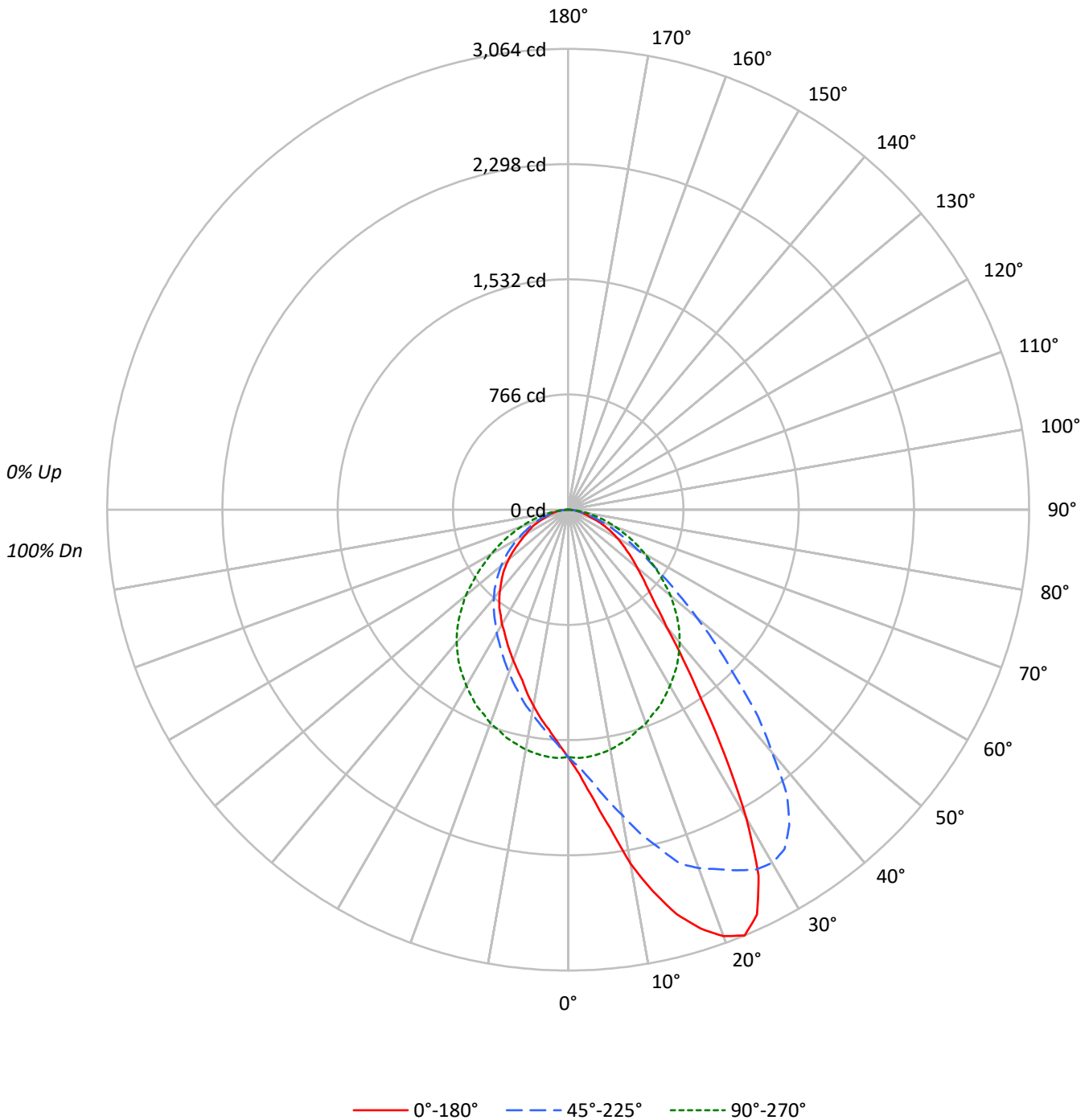
Lumens per Lamp: N/A
Luminaire Lumens: 4285.9 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.22 / 1.4
Luminous Opening: Rectangular (W 3.88' x L: 0.23' x H: 0')
CIE Type: Direct

Input Watts (W): 37.7
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

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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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	89	87					87			
2	101	94	88	83	99	92	86	82	89	84	80	85	81	78	82	79	76	74					74			
3	93	84	76	70	91	82	75	70	79	73	68	76	71	67	74	70	66	64					64			
4	86	75	67	61	84	74	66	60	71	65	59	69	63	59	67	62	58	56					56			
5	79	68	59	53	77	66	59	53	64	57	52	62	56	52	61	55	51	49					49			
6	74	61	53	47	72	60	52	47	59	52	46	57	51	46	55	50	46	44					44			
7	69	56	48	42	67	55	47	42	54	47	41	52	46	41	51	45	41	39					39			
8	64	51	43	38	62	51	43	37	49	42	37	48	42	37	47	41	37	35					35			
9	60	47	39	34	59	47	39	34	45	39	34	44	38	34	43	38	33	32					32			
10	56	44	36	31	55	43	36	31	42	35	31	41	35	31	40	35	31	29					29			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	19938	19938	19938	19938	19938
5°	23505	22062	20048	18226	17853
10°	29424	25368	19931	16941	16295
15°	34918	29189	19732	15847	14759
20°	38917	32715	19494	14869	13741
25°	39723	35383	19254	13981	12937
30°	33101	37962	18927	13291	12307
35°	22868	37908	18665	12674	11792
40°	16070	33377	18239	12160	11171
45°	12904	26882	17593	11615	10568
50°	11250	21041	16755	10969	9777
55°	10087	16240	15505	10251	8705
60°	9125	12931	14325	9297	7886
65°	7985	10612	13199	8412	7374
70°	6443	8633	11880	7726	6241
75°	5587	6786	10345	6519	6121
80°	5158	5549	8823	6247	6150
85°	4548	4742	7107	5633	5340

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 55°
 Vertical Angle: 45°
 Luminance: 33687 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.3	3.8
10°-20°	508.0	11.9
20°-30°	814.0	19.0
30°-40°	883.7	20.6
40°-50°	757.1	17.7
50°-60°	573.9	13.4
60°-70°	366.7	8.6
70°-80°	175.3	4.1
80°-90°	46.0	1.1
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°	1483.3	34.6
0°-40°	2366.9	55.2
0°-60°	3697.8	86.3
0°-90°	4285.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4285.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1645	1645	1645	1645	1645	
5°	1932	1813	1648	1498	1467	198
15°	2783	2326	1572	1263	1176	789
25°	2970	2646	1440	1045	967	1318
35°	1545	2562	1261	856	797	993
45°	753	1568	1026	678	616	595
55°	477	768	734	485	412	430
65°	278	370	460	293	257	277
75°	119	145	221	139	131	129
85°	33	34	51	40	38	37
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°	1644.9	1644.9	1644.9	1644.9	1644.9	1644.9	1644.9	1644.9	1644.9	1644.9	1644.9
2.5°	1762.8	1764.9	1761.3	1760.6	1759.9	1748.6	1745.0	1739.3	1719.4	1714.5	1710.9
5°	1931.8	1926.1	1932.5	1920.4	1906.9	1899.1	1886.3	1857.9	1833.1	1813.2	1800.4
7.5°	2132.1	2134.2	2127.8	2116.5	2089.5	2078.1	2043.3	2009.2	1976.5	1935.4	1904.8
10°	2390.6	2373.6	2377.1	2341.6	2313.2	2279.1	2231.5	2176.8	2119.3	2061.1	2017.7
12.5°	2596.6	2608.6	2600.1	2583.1	2528.4	2495.0	2451.7	2372.1	2281.2	2203.1	2137.1
15°	2782.6	2766.3	2768.4	2727.2	2707.4	2676.8	2605.1	2526.3	2467.3	2326.0	2247.8
17.5°	2919.0	2917.6	2915.5	2880.7	2856.5	2792.6	2719.4	2638.5	2564.6	2466.6	2368.6
20°	3017.0	3027.7	3024.8	2996.4	2953.8	2892.0	2848.0	2747.1	2625.7	2536.2	2416.2
22.5°	3063.9	3064.6	3066.0	3052.5	3024.1	2984.3	2921.8	2840.9	2732.9	2586.6	2453.1
25°	2970.1	2973.7	2992.2	3003.5	3011.3	2993.6	2960.9	2887.8	2794.7	2645.6	2507.1
27.5°	2740.0	2751.4	2772.0	2840.2	2867.9	2906.2	2919.7	2890.6	2821.7	2697.4	2539.7
30°	2365.0	2397.0	2416.9	2494.3	2603.0	2705.2	2753.5	2801.1	2794.7	2712.3	2552.5
32.5°	1936.1	1956.7	2014.2	2097.3	2183.2	2333.1	2500.7	2615.7	2680.4	2676.1	2563.2
35°	1545.4	1575.3	1624.3	1687.5	1806.1	1961.6	2151.3	2332.4	2494.3	2561.8	2521.3
37.5°	1254.2	1257.1	1303.3	1392.7	1466.6	1603.7	1774.8	1998.6	2210.9	2387.1	2426.1
40°	1015.6	1035.5	1059.6	1115.8	1203.1	1334.5	1448.1	1668.3	1888.5	2109.4	2267.0
42.5°	865.0	865.0	892.0	927.5	985.8	1064.6	1200.3	1399.8	1598.0	1869.3	2046.9
45°	752.8	759.9	772.0	794.7	835.9	897.0	1002.1	1137.8	1340.2	1568.2	1835.2
47.5°	671.9	671.2	681.8	695.3	727.3	773.4	835.2	945.3	1095.2	1340.9	1576.7
50°	596.6	599.4	607.2	618.6	639.9	672.6	711.6	794.7	921.2	1115.8	1362.9
52.5°	538.3	537.6	544.0	551.1	567.5	585.9	620.7	682.5	769.9	924.7	1130.0
55°	477.3	480.1	487.9	492.2	505.7	517.8	546.9	581.7	652.0	768.5	955.2
57.5°	424.7	428.3	432.5	436.8	446.0	458.1	482.2	503.5	554.7	638.5	787.6
60°	376.4	375.0	380.0	387.1	392.0	402.7	416.2	438.2	473.7	533.4	642.7
62.5°	328.1	328.8	329.5	333.8	343.0	352.3	364.3	380.7	402.0	446.0	523.4
65°	278.4	279.1	280.5	284.8	294.0	299.7	312.5	326.7	343.7	370.0	424.0
67.5°	234.4	237.2	237.2	240.8	244.3	250.0	259.2	269.9	284.1	303.3	338.1
70°	181.8	181.1	184.7	191.8	195.3	205.3	211.6	218.7	231.5	243.6	273.4
72.5°	146.3	146.3	146.3	149.1	149.9	152.0	156.2	171.2	181.1	193.2	209.5
75°	119.3	120.0	120.0	120.7	121.4	123.6	125.0	129.3	132.1	144.9	154.8
77.5°	95.2	95.9	95.9	96.6	97.3	98.0	100.9	100.9	103.0	105.8	110.1
80°	73.9	73.2	73.2	73.9	73.9	76.0	76.0	77.4	78.1	79.5	81.7
82.5°	52.6	51.8	52.6	51.8	52.6	53.3	54.7	54.0	55.4	56.8	57.5
85°	32.7	33.4	33.4	34.8	34.1	33.4	34.1	34.1	34.1	34.1	35.5
87.5°	14.2	15.6	15.6	14.9	15.6	15.6	14.2	15.6	15.6	15.6	16.3
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1644.9	1644.9	1644.9	1644.9	1644.9	1644.9	1644.9	1644.9	1644.9	1644.9	1644.9
2.5°	1708.8	1705.9	1695.3	1685.4	1670.4	1664.0	1655.5	1652.0	1640.6	1625.0	1617.9
5°	1788.3	1767.0	1746.4	1721.6	1701.0	1676.8	1663.3	1647.7	1623.6	1601.5	1585.9
7.5°	1872.9	1841.6	1803.3	1762.1	1725.1	1690.3	1660.5	1635.6	1604.4	1573.8	1549.7
10°	1965.9	1912.6	1850.8	1798.3	1745.0	1694.6	1656.9	1619.3	1578.8	1540.5	1511.3
12.5°	2066.0	1990.7	1916.2	1837.3	1757.8	1699.6	1643.5	1595.2	1549.7	1509.2	1474.4
15°	2169.7	2066.7	1971.6	1882.8	1772.0	1693.9	1632.1	1572.4	1515.6	1465.9	1431.8
17.5°	2243.6	2125.7	2005.7	1880.0	1784.8	1688.2	1611.5	1536.2	1483.7	1432.5	1386.4
20°	2311.8	2178.2	2035.5	1918.3	1785.5	1667.6	1583.8	1511.3	1438.2	1383.5	1344.4
22.5°	2340.9	2220.1	2076.0	1913.3	1780.5	1659.8	1551.8	1470.2	1404.8	1345.2	1294.0
25°	2346.6	2211.6	2063.9	1906.9	1761.3	1630.7	1521.3	1439.6	1354.4	1292.6	1252.8
27.5°	2371.4	2186.8	2041.9	1885.6	1737.9	1601.5	1486.5	1395.6	1316.0	1250.0	1198.9
30°	2377.8	2176.1	1995.0	1845.9	1693.9	1560.4	1443.9	1352.3	1265.6	1198.1	1152.0
32.5°	2380.7	2161.9	1946.0	1782.7	1637.8	1512.1	1405.5	1306.1	1223.7	1152.7	1105.1
35°	2370.7	2142.0	1887.1	1710.9	1571.7	1448.1	1349.4	1261.4	1169.7	1103.0	1052.5
37.5°	2331.7	2110.8	1853.7	1627.1	1494.3	1377.8	1294.0	1207.4	1122.9	1050.4	998.6
40°	2257.8	2065.3	1791.2	1556.8	1406.2	1301.8	1223.7	1152.7	1067.5	997.9	946.7
42.5°	2139.9	2003.5	1733.6	1477.3	1318.9	1220.2	1154.8	1093.7	1017.0	951.0	894.9
45°	1965.2	1916.9	1656.9	1396.3	1223.7	1130.7	1073.9	1026.3	956.7	896.3	844.5
47.5°	1776.3	1786.9	1579.5	1313.9	1137.1	1048.3	998.6	956.7	904.1	839.5	791.9
50°	1558.2	1616.5	1470.9	1230.8	1050.4	963.1	914.1	888.5	839.5	785.5	740.8
52.5°	1358.7	1451.0	1360.8	1139.9	965.2	879.3	833.8	808.2	775.6	730.8	685.4
55°	1152.0	1269.2	1203.8	1041.9	878.5	791.9	753.5	733.7	706.7	671.9	630.7
57.5°	980.8	1105.8	1064.6	938.9	794.0	715.9	681.8	659.1	642.7	610.8	577.4
60°	813.2	929.0	912.6	820.3	710.2	635.6	609.4	590.9	577.4	554.0	521.3
62.5°	656.2	768.5	778.4	706.0	628.5	561.1	536.9	524.1	513.5	495.0	465.2
65°	520.6	619.3	639.9	584.5	542.6	491.5	468.0	460.2	452.4	431.1	408.4
67.5°	407.7	485.1	512.1	480.8	451.0	421.2	402.7	392.0	386.4	373.6	358.0
70°	311.8	378.5	401.3	387.8	367.9	356.5	342.3	335.2	329.5	313.2	304.7
72.5°	233.7	279.1	307.5	303.3	299.0	291.2	282.7	280.5	272.0	261.4	253.5
75°	171.2	197.4	223.0	232.2	230.8	233.7	224.4	220.9	215.9	208.1	201.7
77.5°	122.9	138.5	156.2	167.6	173.3	174.0	174.0	171.9	168.3	162.6	157.7
80°	85.2	88.8	105.1	115.8	121.4	125.7	125.7	126.4	122.9	120.7	117.2
82.5°	58.9	61.1	64.6	73.2	80.3	85.2	85.9	85.2	83.8	83.1	78.1
85°	36.9	36.2	36.2	38.4	44.0	49.0	49.7	51.1	50.4	49.7	44.7
87.5°	15.6	15.6	16.3	15.6	17.8	18.5	19.9	23.4	22.7	19.2	17.8
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°	1644.9	1644.9	1644.9	1644.9	1644.9	1644.9	1644.9	1644.9	1644.9	1644.9	1644.9
2.5°	1613.6	1604.4	1595.9	1586.6	1575.3	1564.6	1563.2	1561.8	1565.3	1558.2	1555.4
5°	1573.8	1556.1	1542.6	1525.6	1513.5	1497.9	1489.3	1487.2	1486.5	1482.2	1476.5
7.5°	1530.5	1511.3	1492.2	1473.0	1453.1	1436.8	1427.5	1422.6	1418.3	1411.2	1405.5
10°	1490.0	1465.9	1445.3	1419.0	1397.7	1376.4	1367.9	1360.8	1356.5	1346.6	1338.8
12.5°	1444.6	1414.0	1391.3	1362.9	1343.7	1325.3	1311.8	1298.3	1288.3	1273.4	1267.0
15°	1404.8	1372.9	1334.5	1317.5	1290.5	1262.8	1247.9	1247.9	1227.3	1215.2	1207.4
17.5°	1351.5	1323.9	1296.9	1262.1	1223.7	1207.4	1190.3	1175.4	1161.2	1157.7	1143.5
20°	1304.7	1272.0	1244.3	1206.7	1171.9	1152.7	1132.8	1116.5	1105.8	1095.9	1088.1
22.5°	1258.5	1225.8	1183.2	1146.3	1122.9	1097.3	1076.0	1061.8	1052.5	1037.6	1030.5
25°	1210.2	1171.2	1132.8	1096.6	1067.5	1045.4	1023.4	1015.6	999.3	991.5	981.5
27.5°	1161.9	1115.0	1078.8	1047.6	1014.9	993.6	978.7	964.5	950.3	946.0	940.3
30°	1107.9	1064.6	1029.8	999.3	968.0	949.6	931.8	919.0	907.0	897.7	891.3
32.5°	1054.0	1017.7	984.4	948.9	920.4	900.6	885.6	874.3	868.6	853.0	847.3
35°	1004.3	967.3	931.8	898.4	875.7	856.5	843.0	832.4	820.3	810.4	804.7
37.5°	953.1	919.7	883.5	855.1	829.5	813.9	799.0	784.8	775.6	769.9	762.8
40°	903.4	867.9	840.2	808.9	786.2	768.5	752.8	742.2	730.8	725.8	716.6
42.5°	856.5	822.4	790.5	762.1	741.5	724.4	709.5	697.4	688.2	679.0	674.0
45°	802.5	772.7	743.6	715.2	696.0	677.6	661.2	650.6	637.8	630.0	627.1
47.5°	757.1	725.8	694.6	668.3	648.4	628.5	615.1	602.3	591.6	583.8	579.5
50°	703.1	674.0	648.4	622.2	603.0	581.7	565.3	553.3	541.2	535.5	528.4
52.5°	657.0	628.5	597.3	573.9	551.8	533.4	518.5	508.5	497.9	489.3	484.4
55°	599.4	571.7	546.9	522.0	500.0	485.1	473.0	456.0	446.7	438.2	424.7
57.5°	549.0	522.7	496.4	472.3	451.7	433.9	419.0	407.7	395.6	389.2	380.0
60°	495.7	468.0	443.9	425.4	402.7	383.5	373.6	360.1	350.1	340.2	337.4
62.5°	443.2	417.6	393.5	374.3	353.7	338.8	326.0	319.6	309.7	301.8	299.0
65°	388.5	367.2	344.5	323.2	310.4	293.3	286.2	275.6	269.9	266.3	265.6
67.5°	334.5	315.3	294.7	278.4	266.3	255.0	246.4	242.2	236.5	232.2	228.7
70°	285.5	267.0	249.3	235.8	226.6	218.0	212.4	204.5	198.9	193.2	185.4
72.5°	237.2	222.3	207.4	196.7	187.5	182.5	174.7	162.6	157.0	155.5	154.8
75°	192.5	176.1	165.5	159.8	151.3	139.2	134.2	132.8	132.1	130.7	130.7
77.5°	148.4	138.5	131.4	119.3	115.1	114.3	110.8	110.1	108.7	109.4	109.4
80°	108.0	102.3	93.7	90.2	88.8	89.5	88.1	88.8	87.4	88.1	86.6
82.5°	71.7	66.8	68.2	66.1	66.1	67.5	66.8	64.6	64.6	63.9	63.9
85°	42.6	41.9	43.3	43.3	42.6	40.5	41.9	41.2	39.1	39.8	39.8
87.5°	18.5	18.5	18.5	17.8	18.5	17.8	17.8	17.8	15.6	15.6	15.6
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: P243438

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CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1644.9	1644.9	1644.9	1644.9
2.5°	1556.8	1555.4	1553.3	1551.1
5°	1476.5	1470.2	1469.4	1467.3
7.5°	1401.3	1398.4	1393.5	1399.1
10°	1332.4	1334.5	1329.5	1323.9
12.5°	1260.6	1256.4	1248.6	1252.8
15°	1197.4	1190.3	1186.1	1176.1
17.5°	1131.4	1125.7	1125.7	1119.3
20°	1073.9	1068.2	1069.6	1065.3
22.5°	1025.6	1021.3	1014.9	1015.6
25°	980.1	973.7	966.6	967.3
27.5°	929.7	924.0	922.6	917.6
30°	884.9	880.0	879.3	879.3
32.5°	841.6	839.5	835.9	833.8
35°	804.0	801.1	795.4	796.9
37.5°	757.1	754.3	753.5	752.8
40°	713.1	710.9	705.2	706.0
42.5°	669.0	665.5	661.9	660.5
45°	621.4	620.7	615.1	616.5
47.5°	576.0	574.6	571.7	568.2
50°	525.6	524.9	522.7	518.5
52.5°	476.6	474.4	470.2	465.9
55°	421.2	414.8	415.5	411.9
57.5°	375.7	372.9	367.2	365.1
60°	331.7	328.8	328.1	325.3
62.5°	294.7	291.9	289.8	289.8
65°	261.4	257.8	257.1	257.1
67.5°	224.4	220.9	220.2	218.7
70°	178.3	177.6	176.1	176.1
72.5°	153.4	152.7	153.4	150.6
75°	130.7	130.0	130.0	130.7
77.5°	108.7	108.7	108.0	108.0
80°	85.9	86.6	85.9	88.1
82.5°	64.6	63.2	63.9	62.5
85°	39.8	39.8	38.4	38.4
87.5°	15.6	15.6	15.6	15.6
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P243438
 CATALOG NUMBER: S123RDRP-H1165D840-X4F0-XX-UDD-A-W

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	18.78	20.29	19.15	20.60	20.91	21.48	22.99	21.85	23.30	23.61
	3H	19.97	21.32	20.35	21.65	22.01	22.91	24.26	23.29	24.58	24.95
	4H	20.32	21.59	20.72	21.93	22.31	23.41	24.67	23.81	25.02	25.40
	6H	20.60	21.76	21.01	22.13	22.52	23.76	24.92	24.17	25.29	25.68
	8H	20.69	21.80	21.12	22.19	22.59	23.86	24.97	24.29	25.36	25.76
	12H	20.75	21.81	21.18	22.19	22.62	23.92	24.98	24.35	25.36	25.79
4H	2H	19.73	21.00	20.13	21.34	21.72	21.76	23.02	22.16	23.37	23.75
	3H	21.00	22.05	21.41	22.45	22.85	23.48	24.52	23.89	24.92	25.33
	4H	21.41	22.35	21.84	22.77	23.20	24.10	25.03	24.53	25.45	25.89
	6H	21.76	22.57	22.22	23.02	23.48	24.55	25.37	25.01	25.81	26.27
	8H	21.87	22.63	22.34	23.08	23.55	24.69	25.45	25.15	25.90	26.36
	12H	21.96	22.64	22.45	23.12	23.59	24.79	25.46	25.27	25.94	26.41
8H	4H	21.77	22.53	22.24	22.98	23.45	24.15	24.92	24.62	25.36	25.83
	6H	22.19	22.82	22.69	23.31	23.79	24.68	25.31	25.18	25.80	26.28
	8H	22.36	22.92	22.87	23.43	23.92	24.87	25.44	25.39	25.95	26.44
	12H	22.50	23.00	23.01	23.49	24.06	25.03	25.52	25.54	26.02	26.58
12H	4H	21.80	22.48	22.28	22.96	23.43	24.14	24.82	24.63	25.30	25.77
	6H	22.24	22.80	22.75	23.31	23.80	24.67	25.24	25.19	25.75	26.24
	8H	22.45	22.95	22.96	23.44	24.00	24.90	25.40	25.41	25.89	26.46