

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: P243501

Luminaire Tested: S124DRP-H1020D835-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243501
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-60)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DRP-H1020D835-X4F0-XX-UDD-A-W
Description: DEFINE 4 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

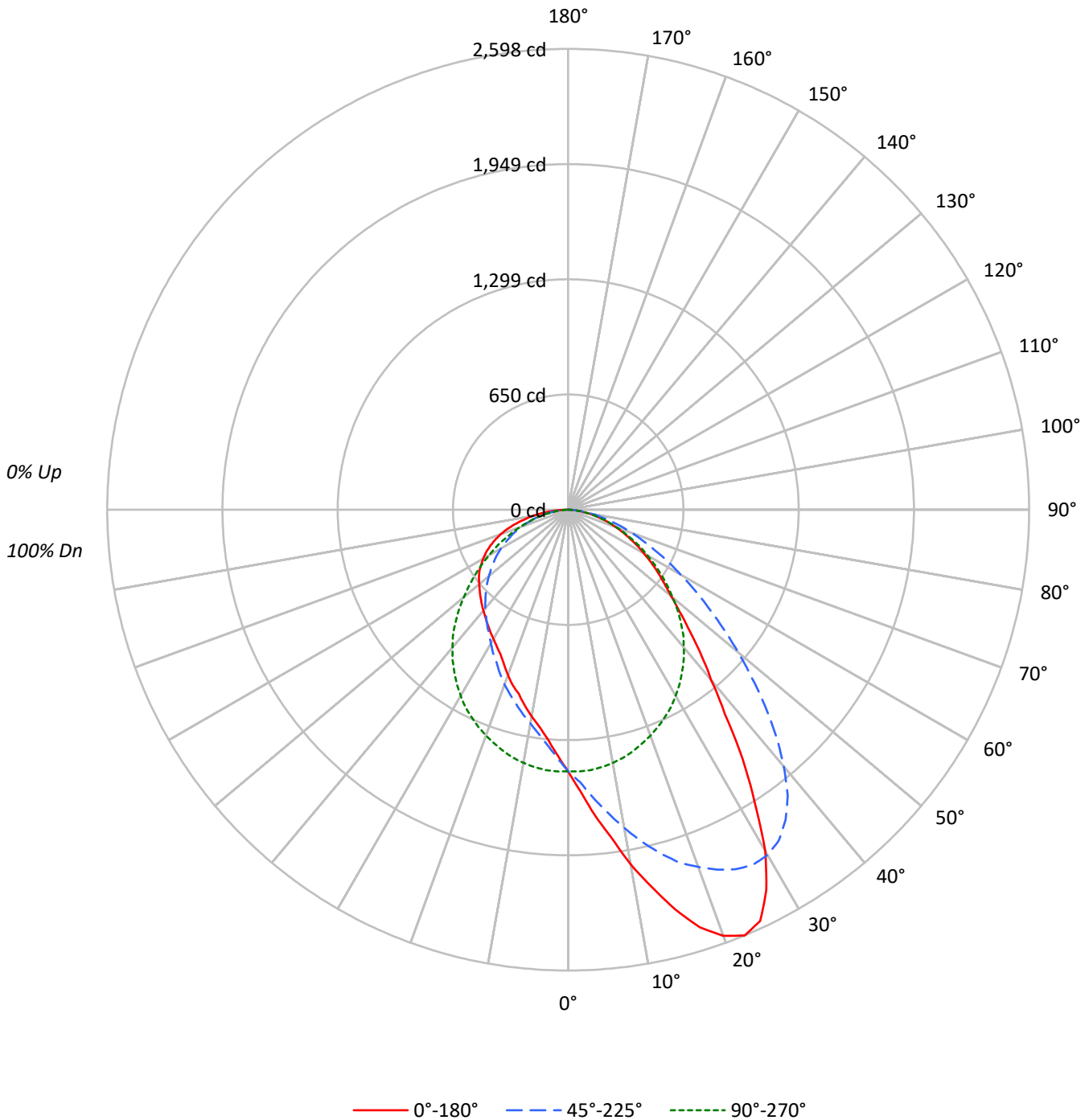
Lumens per Lamp: N/A
Luminaire Lumens: 4229.5 lumens
Efficiency: N/A
Efficacy: 134.3 lumens/watt
Spacing Criteria (0/90/45): 1.35 / 1.22 / 1.45
Luminous Opening: Rectangular (W 3.88' x L: 0.31' x H: 0')
CIE Type: Direct

Input Watts (W): 31.5
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

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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	109	105	101	97	107	103	99	96	98	95	93	94	92	90	91	89	87	85					85			
2	100	92	86	80	97	90	84	79	87	82	77	83	79	76	80	77	74	72					72			
3	92	81	74	67	89	80	73	67	77	71	66	74	69	64	72	67	63	61					61			
4	84	73	64	58	82	71	63	57	69	62	56	66	60	56	64	59	55	53					53			
5	78	65	56	50	75	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	38	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	35	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	34	28	40	33	28	39	33	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	13111	13111	13111	13111	13111
5°	15429	14548	13145	11883	11603
10°	18335	16449	13085	11042	10683
15°	21474	18449	12970	10438	9895
20°	24181	20274	12819	9915	9386
25°	25095	21936	12648	9353	8834
30°	22790	23075	12433	8936	8639
35°	18593	23167	12138	8637	8585
40°	14559	21929	11758	8432	8620
45°	12185	19776	11285	8241	8779
50°	10457	17293	10623	8059	9041
55°	9554	14984	9909	7921	9480
60°	8756	13004	9173	7792	9826
65°	8028	11269	8396	7534	10207
70°	7386	9873	7573	7293	10515
75°	6577	8497	6659	6804	10502
80°	5487	6905	5457	6286	10478
85°	4171	5161	4110	5650	9822

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 50°
 Vertical Angle: 45°
 Luminance: 20669 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.6	3.4
10°-20°	444.7	10.5
20°-30°	714.4	16.9
30°-40°	816.6	19.3
40°-50°	751.7	17.8
50°-60°	614.9	14.5
60°-70°	438.2	10.4
70°-80°	240.8	5.7
80°-90°	64.7	1.5
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°	1302.6	30.8
0°-40°	2119.2	50.1
0°-60°	3485.8	82.4
0°-90°	4229.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4229.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1475	1475	1475	1475	1475	
5°	1729	1630	1473	1332	1300	174
15°	2334	2005	1409	1134	1075	665
25°	2559	2237	1290	954	901	1148
35°	1713	2135	1119	796	791	1065
45°	969	1573	898	656	698	757
55°	616	967	639	511	612	553
65°	382	536	399	358	485	381
75°	192	247	194	198	306	205
85°	41	51	40	55	96	49
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°	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0
2.5°	1588.2	1583.4	1581.0	1578.0	1577.4	1574.4	1568.3	1559.9	1549.1	1537.6	1537.6
5°	1729.1	1727.9	1718.9	1719.5	1708.0	1695.4	1685.7	1673.7	1650.2	1630.4	1616.5
7.5°	1863.9	1876.6	1873.6	1863.9	1847.1	1829.0	1809.8	1792.9	1749.6	1725.5	1705.6
10°	2031.3	2036.1	2027.7	2013.9	1998.8	1963.9	1938.6	1910.3	1863.3	1822.4	1786.3
12.5°	2178.2	2189.7	2174.6	2161.4	2125.8	2100.0	2074.7	2018.1	1968.7	1916.9	1864.5
15°	2333.5	2321.5	2329.3	2296.8	2271.5	2246.9	2182.4	2124.6	2068.6	2004.8	1950.0
17.5°	2468.4	2468.4	2454.0	2432.9	2406.4	2360.0	2295.6	2231.8	2169.8	2086.1	2008.4
20°	2556.3	2562.9	2546.1	2523.8	2491.9	2443.7	2392.5	2323.3	2240.8	2143.3	2055.4
22.5°	2598.4	2599.7	2593.6	2575.0	2549.1	2508.1	2455.8	2388.3	2301.0	2196.3	2104.2
25°	2558.7	2565.3	2563.5	2562.3	2549.1	2525.6	2483.5	2420.8	2341.4	2236.6	2137.3
27.5°	2419.0	2435.3	2449.1	2455.2	2469.6	2470.8	2458.2	2420.2	2355.2	2256.5	2145.7
30°	2220.4	2211.9	2249.3	2267.9	2317.3	2346.8	2367.9	2365.5	2328.1	2248.1	2142.7
32.5°	1955.5	1978.3	2004.8	2048.8	2107.2	2175.8	2227.6	2266.1	2262.5	2210.1	2122.2
35°	1713.4	1713.4	1747.1	1801.3	1863.3	1945.8	2032.5	2104.2	2148.1	2134.9	2072.9
37.5°	1450.9	1467.2	1505.7	1547.9	1623.7	1703.2	1817.6	1912.7	2004.8	2032.5	2000.6
40°	1254.7	1261.9	1302.8	1338.4	1416.0	1498.5	1594.2	1715.8	1821.8	1889.8	1894.1
42.5°	1109.0	1108.4	1125.2	1157.1	1219.8	1293.2	1396.8	1516.0	1640.0	1736.3	1781.5
45°	969.3	968.1	985.6	1018.1	1062.6	1127.6	1217.3	1336.6	1463.6	1573.2	1644.2
47.5°	851.3	862.1	870.0	895.2	932.0	987.4	1064.4	1159.5	1281.8	1404.6	1500.3
50°	756.2	761.0	777.8	789.9	830.8	869.4	931.4	1016.9	1121.6	1250.5	1354.0
52.5°	680.3	683.3	693.6	709.2	732.7	766.4	815.8	894.6	989.2	1101.1	1208.3
55°	616.5	614.7	621.3	631.6	652.0	680.3	716.4	776.6	859.1	966.9	1065.6
57.5°	553.9	553.9	559.9	567.1	578.6	602.1	637.6	685.1	751.4	847.1	934.4
60°	492.5	496.7	499.1	506.3	516.0	533.4	559.9	597.2	653.2	731.5	818.2
62.5°	438.3	438.3	442.5	444.9	457.6	470.2	489.5	521.4	565.3	635.2	702.6
65°	381.7	385.3	385.3	390.1	401.0	410.6	425.6	449.7	485.9	535.8	599.0
67.5°	333.5	333.5	336.5	339.0	345.0	351.6	364.8	383.5	414.2	453.9	511.1
70°	284.2	286.0	284.8	287.8	291.4	298.0	307.6	323.3	345.6	379.9	422.0
72.5°	239.6	237.2	238.4	241.4	243.2	247.4	253.5	265.5	283.6	311.3	342.0
75°	191.5	190.2	194.5	193.3	196.3	199.9	205.3	214.3	228.2	247.4	270.9
77.5°	149.3	147.5	149.3	150.5	151.7	154.7	158.9	164.4	174.0	186.6	207.7
80°	107.2	106.6	107.8	109.0	109.6	114.4	115.6	121.0	125.2	134.9	145.1
82.5°	71.0	72.2	72.8	74.1	73.5	75.9	77.1	80.7	84.3	89.1	96.9
85°	40.9	39.1	40.9	40.9	40.9	43.9	43.3	45.8	48.2	50.6	56.0
87.5°	14.4	14.4	15.1	15.7	15.7	17.5	16.9	18.1	20.5	20.5	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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0
2.5°	1534.0	1527.4	1522.6	1508.7	1500.3	1492.5	1485.3	1477.4	1469.0	1458.2	1451.5
5°	1602.1	1587.6	1566.5	1547.3	1525.6	1506.3	1490.7	1473.2	1454.0	1434.1	1416.6
7.5°	1677.3	1650.2	1617.7	1582.2	1548.5	1520.2	1490.7	1463.0	1435.9	1409.4	1384.7
10°	1752.6	1705.6	1662.9	1614.1	1569.5	1526.8	1488.3	1449.7	1416.0	1381.1	1349.8
12.5°	1822.4	1765.8	1703.2	1642.4	1582.8	1527.4	1479.8	1432.9	1389.5	1348.0	1311.3
15°	1876.0	1804.9	1730.9	1658.6	1590.0	1532.2	1470.2	1409.4	1364.2	1313.7	1273.3
17.5°	1937.4	1853.1	1779.7	1693.0	1607.5	1514.2	1448.5	1382.3	1328.1	1279.4	1239.0
20°	1978.3	1885.6	1779.7	1681.5	1593.6	1509.9	1431.1	1355.2	1298.0	1241.4	1192.7
22.5°	2010.8	1915.1	1798.3	1696.0	1585.8	1484.7	1399.2	1324.5	1257.1	1203.5	1157.1
25°	2027.7	1910.9	1799.5	1675.5	1565.3	1468.4	1372.1	1289.6	1221.6	1162.0	1122.2
27.5°	2028.3	1908.5	1776.7	1653.8	1535.8	1431.1	1335.9	1254.7	1178.2	1121.0	1073.5
30°	2025.3	1892.8	1753.8	1619.5	1502.1	1395.0	1295.6	1211.3	1141.5	1080.7	1035.5
32.5°	2006.0	1871.2	1719.5	1578.6	1450.9	1343.2	1251.7	1168.0	1093.3	1037.9	990.4
35°	1962.7	1823.6	1671.3	1526.2	1405.2	1293.2	1202.9	1118.6	1051.8	991.6	942.8
37.5°	1907.3	1777.3	1622.5	1470.8	1340.2	1234.2	1149.3	1069.8	1000.0	944.6	895.9
40°	1837.5	1715.2	1562.9	1405.2	1274.5	1167.4	1087.3	1013.3	953.6	897.1	849.5
42.5°	1741.7	1647.8	1491.3	1337.8	1201.1	1099.9	1022.3	960.9	899.5	848.3	800.7
45°	1639.4	1553.9	1414.8	1262.5	1131.3	1027.1	954.2	897.7	845.3	793.5	755.0
47.5°	1526.2	1456.4	1327.5	1178.8	1049.4	957.3	885.6	835.0	786.9	747.1	708.6
50°	1391.3	1354.6	1234.2	1099.3	973.5	879.0	820.0	768.2	732.7	694.2	658.0
52.5°	1266.1	1236.6	1138.5	1006.0	891.6	808.6	745.3	704.4	669.5	641.2	612.3
55°	1130.0	1115.0	1031.9	917.5	814.0	730.9	676.7	639.4	611.7	585.2	564.1
57.5°	1004.8	1003.6	930.2	832.0	730.9	660.4	608.7	578.0	553.9	535.2	517.2
60°	876.6	886.8	826.6	736.9	656.8	590.6	543.7	516.0	499.7	482.2	467.2
62.5°	760.4	776.0	721.3	650.8	571.9	517.8	481.6	460.6	442.5	429.9	418.4
65°	649.0	668.9	624.3	561.1	500.9	449.7	419.0	399.2	385.3	378.1	370.3
67.5°	550.9	561.7	531.6	482.2	432.3	387.7	362.4	345.0	332.9	329.9	320.9
70°	452.7	465.4	444.3	399.2	360.6	328.1	305.2	291.4	284.2	280.0	273.9
72.5°	373.9	379.3	358.2	326.9	296.2	269.1	252.3	242.0	233.6	231.8	228.8
75°	292.6	300.4	283.6	259.5	234.2	214.9	202.3	193.9	189.6	186.6	186.6
77.5°	221.0	227.6	217.9	196.9	181.8	165.0	156.5	148.7	146.9	143.9	145.1
80°	157.1	160.1	154.7	140.3	127.0	118.0	110.8	106.6	106.0	103.6	106.0
82.5°	104.2	104.8	98.7	92.1	81.9	77.1	72.2	70.4	69.8	69.8	68.6
85°	57.8	59.0	54.8	50.6	47.0	42.7	41.5	40.3	39.1	40.9	42.1
87.5°	22.3	22.9	22.3	20.5	19.3	18.1	17.5	18.7	16.9	18.1	18.7
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°	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0	1475.0
2.5°	1441.3	1436.5	1429.3	1417.2	1408.8	1399.8	1396.2	1397.4	1393.7	1388.9	1390.1
5°	1403.4	1389.5	1377.5	1360.6	1345.0	1331.7	1327.5	1322.1	1317.3	1314.3	1311.3
7.5°	1363.0	1343.8	1325.7	1308.9	1290.8	1273.9	1267.3	1262.5	1260.1	1251.7	1248.1
10°	1324.5	1302.2	1280.6	1260.7	1242.0	1223.4	1216.7	1210.7	1202.3	1198.7	1194.5
12.5°	1283.6	1261.3	1237.8	1213.7	1195.1	1180.0	1168.6	1164.4	1155.9	1152.3	1149.9
15°	1243.8	1216.7	1198.1	1179.4	1151.1	1134.3	1129.4	1114.4	1109.6	1102.4	1097.5
17.5°	1204.1	1178.8	1151.1	1129.4	1112.0	1090.9	1079.5	1072.9	1063.8	1057.2	1048.2
20°	1165.0	1135.5	1113.8	1086.7	1067.4	1048.2	1033.7	1027.7	1019.9	1010.8	998.2
22.5°	1127.0	1094.5	1073.5	1048.2	1024.1	1001.8	989.8	981.3	965.7	963.9	952.4
25°	1082.5	1053.6	1025.9	999.4	975.9	953.6	945.8	932.6	927.2	916.3	914.5
27.5°	1040.3	1009.6	979.5	950.6	930.2	914.5	900.7	892.2	886.8	878.4	879.0
30°	996.4	962.7	934.4	907.9	885.6	870.6	861.5	857.3	849.5	848.3	844.1
32.5°	949.4	918.7	889.2	865.7	842.9	829.6	825.4	821.2	816.4	817.0	815.8
35°	902.5	875.4	844.1	822.4	803.7	795.9	789.3	788.1	786.3	787.5	787.5
37.5°	856.7	827.2	801.3	781.5	770.6	759.8	756.8	756.2	756.8	758.0	761.0
40°	812.2	785.1	759.8	743.5	731.5	726.7	722.5	724.3	726.7	730.9	734.5
42.5°	767.6	741.7	720.7	704.4	693.0	690.6	691.2	694.8	695.4	701.4	708.0
45°	720.7	698.4	678.5	665.9	658.6	655.6	656.8	660.4	664.7	673.1	681.5
47.5°	677.3	657.4	640.0	627.3	621.9	620.7	623.1	627.9	637.6	646.0	655.6
50°	633.4	615.3	599.0	587.6	587.0	582.8	588.2	594.2	605.7	617.1	631.6
52.5°	590.0	572.5	558.7	549.7	547.3	547.3	553.9	564.7	575.0	590.0	603.3
55°	544.9	529.2	516.0	512.9	509.3	511.1	518.4	529.2	543.7	560.5	575.0
57.5°	498.5	485.3	475.6	471.4	469.6	475.6	484.0	495.5	514.2	531.0	546.7
60°	454.5	443.1	432.9	431.7	430.5	438.3	448.5	460.6	479.2	496.1	515.4
62.5°	407.6	398.6	391.9	390.1	390.1	398.0	409.4	425.0	442.5	460.6	481.0
65°	360.0	352.2	350.4	348.0	353.4	358.2	369.7	384.7	403.4	423.2	444.9
67.5°	316.1	311.3	307.6	307.6	311.9	320.9	331.1	346.2	365.4	386.5	405.8
70°	272.1	267.3	264.3	267.3	269.7	280.6	291.4	305.8	323.9	344.4	364.8
72.5°	226.4	227.0	227.6	227.0	229.4	239.6	250.5	264.3	281.8	301.6	320.3
75°	186.0	183.0	183.6	184.8	192.7	198.1	208.9	222.2	240.8	258.9	274.5
77.5°	144.5	143.3	146.3	146.3	153.5	160.1	169.2	182.4	198.7	214.9	227.6
80°	106.0	106.6	109.0	109.6	115.6	122.8	132.5	141.5	155.9	167.4	179.4
82.5°	71.6	72.8	75.9	80.1	82.5	86.7	95.1	104.8	115.0	127.0	134.3
85°	41.5	43.3	45.8	48.8	51.2	55.4	61.4	69.2	76.5	83.1	89.1
87.5°	20.5	20.5	22.3	23.5	25.3	27.7	31.9	34.9	39.7	44.6	47.0
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: P243501

CATALOG NUMBER: S124DRP-H1020D835-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1475.0	1475.0	1475.0	1475.0
2.5°	1387.7	1387.1	1384.7	1385.9
5°	1309.5	1303.4	1302.8	1300.4
7.5°	1242.0	1240.2	1240.2	1235.4
10°	1190.3	1184.8	1186.0	1183.6
12.5°	1140.9	1137.9	1134.3	1130.7
15°	1085.5	1085.5	1085.5	1075.3
17.5°	1042.1	1041.5	1038.5	1037.9
20°	997.0	994.6	986.8	992.2
22.5°	951.2	949.4	942.8	944.0
25°	908.5	906.7	905.5	900.7
27.5°	871.8	872.4	873.6	870.6
30°	844.1	842.3	844.7	841.7
32.5°	818.2	818.2	815.8	816.4
35°	788.7	791.1	791.7	791.1
37.5°	762.8	765.8	768.2	765.8
40°	738.7	741.1	743.5	742.9
42.5°	713.4	717.6	719.5	721.3
45°	689.3	694.8	697.8	698.4
47.5°	664.7	671.3	677.3	676.7
50°	640.6	649.0	654.4	653.8
52.5°	616.5	624.9	631.6	634.6
55°	589.4	600.2	606.3	611.7
57.5°	562.3	574.4	580.4	582.8
60°	532.2	543.0	550.9	552.7
62.5°	498.5	509.9	520.2	522.6
65°	463.6	476.2	484.0	485.3
67.5°	423.2	435.3	443.1	446.7
70°	381.7	390.7	399.2	404.6
72.5°	335.3	346.2	354.0	357.6
75°	287.2	299.2	303.4	305.8
77.5°	237.2	244.4	251.1	251.7
80°	187.2	196.3	198.7	204.7
82.5°	137.9	146.3	144.5	146.9
85°	90.9	93.9	95.7	96.3
87.5°	48.2	50.0	51.2	51.8
90°	0.0	0.0	0.0	0.0

TEST NUMBER: P243501
 CATALOG NUMBER: S124DRP-H1020D835-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	19.51	21.08	19.87	21.40	21.71	19.80	21.37	20.16	21.68	22.00
	3H	20.95	22.37	21.33	22.69	23.05	21.18	22.60	21.56	22.93	23.29
	4H	21.47	22.80	21.87	23.15	23.53	21.67	23.00	22.07	23.35	23.72
	6H	21.82	23.05	22.23	23.41	23.80	21.98	23.21	22.39	23.58	23.97
	8H	21.91	23.09	22.34	23.48	23.88	22.07	23.24	22.49	23.63	24.03
	12H	21.96	23.09	22.39	23.47	23.90	22.11	23.23	22.54	23.62	24.05
4H	2H	20.65	21.98	21.04	22.32	22.70	20.59	21.92	20.99	22.27	22.64
	3H	22.15	23.26	22.56	23.66	24.06	22.29	23.40	22.70	23.80	24.20
	4H	22.72	23.72	23.15	24.14	24.58	22.89	23.89	23.32	24.30	24.74
	6H	23.14	24.01	23.59	24.45	24.91	23.29	24.16	23.74	24.60	25.06
	8H	23.25	24.07	23.71	24.51	24.98	23.39	24.21	23.86	24.65	25.12
	12H	23.33	24.06	23.81	24.53	25.00	23.46	24.19	23.94	24.67	25.14
8H	4H	23.15	23.97	23.61	24.41	24.88	23.23	24.04	23.69	24.49	24.95
	6H	23.65	24.32	24.14	24.81	25.29	23.76	24.44	24.25	24.92	25.40
	8H	23.81	24.42	24.32	24.93	25.41	23.92	24.53	24.43	25.04	25.52
	12H	23.93	24.46	24.43	24.95	25.52	24.04	24.57	24.54	25.07	25.63
12H	4H	23.19	23.92	23.67	24.40	24.87	23.26	23.99	23.74	24.47	24.94
	6H	23.71	24.32	24.22	24.83	25.32	23.82	24.43	24.33	24.94	25.42
	8H	23.93	24.46	24.43	24.96	25.52	24.04	24.58	24.55	25.07	25.63