

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: P242739

Luminaire Tested: S124RDRP-S1020D830-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242739
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-31)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S1020D830-X4F0-XX-UDD-A-W
Description: DEFINE 4 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

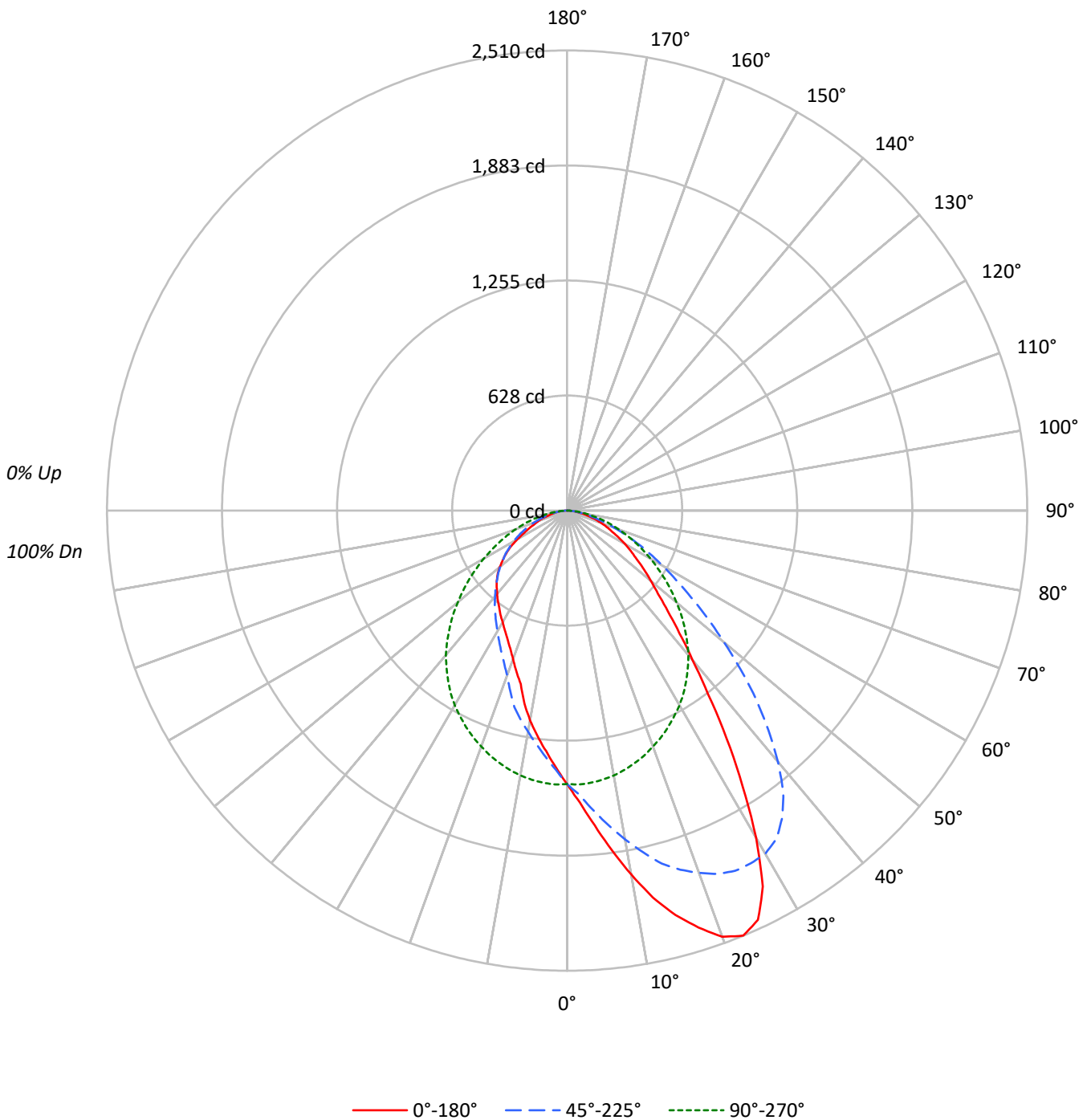
Lumens per Lamp: N/A
Luminaire Lumens: 3770.7 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.22 / 1.39
Luminous Opening: Rectangular (W 3.88' x L: 0.31' x H: 0')
CIE Type: Direct

Input Watts (W): 34.8
Input Voltage (V): 120
Input Current (A_{in}): 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	98	107	103	100	97	99	96	94	95	93	91	92	90	88					86				
2	101	93	87	82	98	92	86	81	88	83	79	85	81	77	82	79	76					74				
3	93	83	76	70	90	81	75	69	79	73	68	76	71	67	73	69	65					63				
4	85	74	66	60	83	73	65	59	71	64	59	68	63	58	66	61	57					55				
5	79	67	58	52	77	66	58	52	64	57	51	62	56	51	60	55	50					48				
6	73	61	52	46	71	60	52	46	58	51	46	56	50	45	55	49	45					43				
7	68	55	47	41	66	54	47	41	53	46	41	52	45	40	50	44	40					38				
8	64	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36					34				
9	59	47	39	33	58	46	38	33	45	38	33	44	38	33	43	37	33					31				
10	56	43	35	30	55	43	35	30	42	35	30	41	34	30	40	34	30					28				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	13260	13260	13260	13260	13260
5°	15379	14640	13300	12033	11755
10°	18194	16436	13241	11061	10491
15°	21017	18351	13118	10220	9015
20°	23400	19898	12951	9039	8152
25°	24156	21267	12785	8329	7569
30°	21146	22183	12584	7804	7218
35°	16460	22193	12287	7408	7005
40°	12344	20760	11946	7092	6890
45°	9746	18321	11400	6822	6830
50°	8228	15416	10771	6591	6632
55°	7172	12779	10078	6343	6278
60°	6453	10695	9360	5984	5556
65°	5687	8912	8584	5574	4779
70°	5123	7124	7779	5029	4312
75°	4293	5533	6893	4417	3675
80°	3629	4182	5877	3660	3445
85°	3060	3315	4600	3253	3060

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 55°
 Vertical Angle: 45°
 Luminance: 19568 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.4	3.8
10°-20°	436.2	11.6
20°-30°	683.2	18.1
30°-40°	758.7	20.1
40°-50°	672.4	17.8
50°-60°	524.0	13.9
60°-70°	342.7	9.1
70°-80°	168.2	4.5
80°-90°	41.0	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°	1263.8	33.5
0°-40°	2022.6	53.6
0°-60°	3218.9	85.4
0°-90°	3770.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3770.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1492	1492	1492	1492	1492	
5°	1724	1641	1490	1349	1317	174
15°	2284	1994	1426	1111	980	650
25°	2463	2168	1304	849	772	1100
35°	1517	2045	1132	683	646	949
45°	775	1457	907	543	543	611
55°	463	825	650	409	405	420
65°	270	424	408	265	227	272
75°	125	161	201	129	107	137
85°	30	32	45	32	30	35
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°	1491.7	1491.7	1491.7	1491.7	1491.7	1491.7	1491.7	1491.7	1491.7	1491.7	1491.7
2.5°	1593.8	1599.2	1593.8	1593.2	1587.2	1585.4	1583.0	1575.2	1560.8	1552.4	1554.2
5°	1723.6	1738.7	1730.2	1729.0	1715.8	1702.6	1694.2	1675.0	1654.5	1640.7	1629.3
7.5°	1867.9	1876.9	1870.9	1864.3	1841.4	1834.2	1814.4	1791.5	1757.3	1731.4	1708.0
10°	2015.7	2022.9	2020.5	2004.9	1989.3	1957.4	1939.4	1903.9	1857.7	1821.0	1786.7
12.5°	2161.2	2169.0	2143.1	2147.9	2114.9	2091.4	2060.2	2013.3	1958.0	1908.1	1863.1
15°	2283.8	2274.1	2274.1	2262.1	2229.1	2194.2	2164.8	2117.9	2050.6	1994.1	1934.6
17.5°	2384.7	2388.9	2384.1	2353.5	2329.4	2294.0	2241.1	2187.6	2129.3	2053.6	1994.7
20°	2473.7	2473.7	2468.3	2449.0	2415.4	2376.9	2318.6	2259.1	2179.8	2103.5	2034.9
22.5°	2509.7	2512.1	2505.5	2490.5	2461.0	2423.8	2376.3	2315.6	2233.3	2144.9	2056.0
25°	2462.9	2474.3	2475.5	2471.3	2462.3	2439.4	2396.7	2334.8	2261.5	2168.4	2077.0
27.5°	2311.4	2326.4	2332.4	2345.7	2370.3	2379.3	2373.9	2332.4	2261.5	2169.6	2078.8
30°	2060.2	2072.2	2111.3	2162.4	2202.0	2238.1	2269.3	2277.7	2241.7	2161.2	2064.4
32.5°	1781.3	1798.8	1837.8	1893.7	1966.4	2033.7	2113.7	2156.3	2164.2	2123.9	2036.2
35°	1516.9	1528.9	1565.0	1622.7	1702.0	1792.8	1903.9	1990.5	2049.4	2045.2	1990.5
37.5°	1263.3	1280.1	1316.8	1364.2	1442.4	1558.4	1663.5	1779.5	1885.3	1937.0	1909.3
40°	1063.8	1064.4	1099.8	1149.1	1221.2	1319.2	1436.4	1568.6	1690.0	1789.1	1808.4
42.5°	906.3	906.3	926.7	980.8	1027.7	1118.4	1229.0	1360.0	1507.3	1625.7	1684.6
45°	775.3	780.7	799.9	831.8	872.6	950.8	1040.3	1162.3	1321.6	1457.4	1542.1
47.5°	671.9	681.5	692.9	721.8	755.4	810.1	886.5	1000.6	1132.9	1283.7	1400.9
50°	595.0	596.2	611.8	626.2	654.5	695.9	760.9	852.2	971.2	1114.8	1248.9
52.5°	528.9	528.3	536.1	555.3	576.9	607.0	656.3	737.4	839.6	964.6	1104.0
55°	462.8	465.8	473.0	487.4	504.8	527.7	569.1	631.6	714.6	824.6	950.2
57.5°	412.3	414.1	420.7	426.1	442.9	459.8	493.4	538.5	611.2	703.2	826.4
60°	363.0	363.6	365.4	374.4	387.0	402.7	423.7	460.4	519.3	601.6	694.1
62.5°	314.9	316.1	319.1	325.1	334.1	343.8	366.0	393.6	439.9	507.2	588.4
65°	270.4	271.0	275.3	277.7	285.5	295.1	311.3	331.1	364.8	423.7	486.8
67.5°	233.2	233.2	233.2	236.8	242.8	249.4	260.2	277.1	304.1	342.0	400.9
70°	197.1	197.1	198.3	200.1	203.1	208.5	214.0	226.0	244.6	274.1	316.7
72.5°	163.5	164.1	165.3	165.3	166.5	170.7	174.3	180.9	193.5	214.0	246.4
75°	125.0	126.8	129.8	132.2	135.2	134.6	138.8	143.6	147.8	161.1	180.9
77.5°	98.6	97.4	97.4	99.8	100.4	101.0	104.0	108.2	111.8	119.0	126.2
80°	70.9	70.9	72.7	73.3	72.7	73.3	76.3	78.1	79.3	81.7	88.3
82.5°	49.3	50.5	49.3	49.9	50.5	51.1	53.5	53.5	54.7	55.3	57.1
85°	30.0	30.7	31.3	30.0	30.0	30.0	31.3	31.9	33.1	32.5	33.7
87.5°	13.2	12.6	13.2	13.2	13.8	13.2	13.8	15.0	13.8	14.4	14.4
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°	1491.7	1491.7	1491.7	1491.7	1491.7	1491.7	1491.7	1491.7	1491.7	1491.7	1491.7
2.5°	1548.1	1539.7	1535.5	1525.9	1514.5	1508.5	1503.1	1495.3	1485.0	1474.2	1466.4
5°	1614.9	1600.4	1582.4	1560.8	1541.5	1522.9	1506.7	1490.5	1471.8	1452.6	1433.4
7.5°	1681.0	1655.1	1627.5	1594.4	1562.6	1533.1	1506.7	1480.8	1451.4	1424.9	1400.3
10°	1750.7	1712.2	1669.5	1624.5	1579.4	1540.3	1501.9	1467.0	1428.6	1394.3	1365.4
12.5°	1807.2	1760.3	1706.8	1647.9	1591.4	1542.1	1496.5	1448.4	1403.3	1365.4	1324.6
15°	1870.9	1809.0	1739.9	1672.6	1602.2	1537.9	1478.4	1425.5	1375.7	1323.4	1286.7
17.5°	1914.8	1843.2	1761.5	1683.4	1602.8	1528.3	1461.0	1399.7	1342.6	1290.3	1247.1
20°	1953.2	1872.1	1778.9	1687.0	1593.8	1512.7	1438.8	1369.1	1309.6	1251.9	1206.8
22.5°	1974.8	1882.9	1778.9	1681.6	1584.2	1494.7	1411.7	1338.4	1272.3	1214.6	1163.5
25°	1976.1	1879.9	1775.9	1665.3	1559.6	1466.4	1382.3	1303.5	1231.4	1173.7	1120.8
27.5°	1971.2	1860.1	1755.5	1643.1	1534.3	1435.2	1348.0	1264.5	1193.0	1131.7	1077.6
30°	1956.8	1835.4	1721.2	1603.4	1492.9	1398.5	1305.3	1226.0	1150.9	1086.6	1031.9
32.5°	1925.6	1805.4	1680.4	1559.0	1446.6	1348.6	1261.5	1181.5	1108.2	1042.1	983.2
35°	1882.3	1760.3	1626.9	1503.1	1393.1	1292.1	1209.2	1132.3	1061.9	991.6	930.3
37.5°	1832.4	1705.0	1573.4	1437.6	1328.2	1232.0	1154.5	1080.6	1012.1	947.8	879.8
40°	1755.5	1641.9	1504.9	1370.3	1257.3	1165.3	1095.0	1029.5	960.4	896.7	828.8
42.5°	1662.3	1569.8	1431.0	1295.7	1184.5	1096.8	1032.5	968.8	907.5	846.2	774.7
45°	1556.6	1483.2	1353.4	1223.6	1111.2	1023.5	963.4	906.9	851.6	792.7	726.0
47.5°	1438.8	1384.7	1271.7	1135.9	1030.7	950.2	892.5	845.6	796.9	737.4	677.3
50°	1315.0	1283.1	1174.9	1053.5	954.4	881.7	822.2	778.9	739.8	683.3	631.0
52.5°	1182.7	1169.5	1082.4	967.6	872.6	801.7	753.0	715.2	675.5	631.0	583.0
55°	1048.1	1057.1	979.6	879.2	789.1	729.0	682.7	650.3	616.6	576.9	539.1
57.5°	908.1	942.4	884.7	793.9	706.8	650.3	614.8	586.0	557.7	524.1	489.8
60°	784.9	812.5	783.1	705.6	631.6	580.0	547.5	526.5	498.2	468.2	443.5
62.5°	664.7	694.7	680.3	621.4	554.1	511.4	483.8	464.6	445.3	420.1	394.2
65°	567.9	587.2	578.8	535.5	486.8	448.9	422.5	408.1	388.8	369.6	346.8
67.5°	454.3	492.2	486.2	462.2	415.3	385.2	366.6	353.4	335.4	320.9	304.7
70°	357.6	391.8	391.2	372.6	349.8	322.1	310.1	299.3	283.7	269.8	257.2
72.5°	276.5	307.1	313.1	299.9	286.1	266.8	255.4	248.8	233.8	225.4	215.8
75°	204.9	227.8	233.8	233.8	226.6	215.8	205.5	200.7	189.9	181.5	175.5
77.5°	144.2	159.9	168.9	170.7	171.3	167.1	157.5	153.9	145.4	142.4	135.8
80°	95.0	104.6	115.4	119.0	122.0	120.8	117.2	114.8	107.0	104.0	101.6
82.5°	58.3	62.5	70.9	79.9	78.1	82.3	79.3	77.5	72.1	71.5	69.1
85°	34.3	34.9	36.1	41.5	44.5	45.7	46.3	45.1	43.3	43.3	39.1
87.5°	14.4	13.8	15.0	15.0	15.6	18.0	19.8	20.4	18.6	16.8	15.0
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°	1491.7	1491.7	1491.7	1491.7	1491.7	1491.7	1491.7	1491.7	1491.7	1491.7	1491.7
2.5°	1458.0	1452.0	1444.2	1435.2	1424.3	1414.7	1410.5	1414.1	1415.9	1411.1	1410.5
5°	1420.1	1405.1	1393.1	1375.1	1360.6	1348.6	1340.2	1336.6	1337.8	1328.2	1325.8
7.5°	1378.1	1361.8	1342.0	1321.6	1302.3	1285.5	1276.5	1272.3	1262.1	1257.9	1251.3
10°	1337.8	1313.8	1294.5	1269.3	1246.5	1225.4	1215.2	1206.8	1196.6	1191.8	1181.5
12.5°	1296.3	1267.5	1245.9	1219.4	1196.0	1169.5	1159.9	1142.5	1125.1	1113.6	1099.8
15°	1257.9	1224.2	1198.4	1167.1	1139.5	1110.6	1084.8	1055.9	1045.1	1022.3	1009.1
17.5°	1212.2	1177.3	1148.5	1108.2	1066.8	1031.9	1003.1	973.0	956.8	941.1	934.5
20°	1167.1	1135.9	1091.4	1042.7	995.2	955.6	933.3	915.3	897.3	887.1	879.8
22.5°	1124.5	1082.4	1028.9	975.4	927.9	899.1	881.0	862.4	848.6	839.0	828.8
25°	1075.8	1023.5	968.8	908.7	876.2	849.2	828.8	813.7	804.7	792.1	787.3
27.5°	1028.3	965.2	903.3	862.4	828.8	802.9	784.3	773.5	761.5	753.0	746.4
30°	971.8	907.5	853.4	814.9	780.7	760.3	745.8	732.6	723.6	717.0	712.2
32.5°	915.9	851.6	808.3	766.3	741.0	721.2	705.6	696.5	689.9	680.9	678.5
35°	862.4	805.3	765.7	728.4	700.8	682.7	670.7	660.5	654.5	652.1	650.3
37.5°	810.1	762.7	718.8	688.7	662.9	649.1	633.4	628.6	624.4	619.0	621.4
40°	760.9	717.0	679.1	646.7	626.8	611.2	602.8	596.8	593.2	593.2	593.2
42.5°	718.2	675.5	638.9	610.6	590.8	578.2	568.5	563.7	563.1	562.5	566.1
45°	673.7	634.0	596.8	572.7	555.9	542.7	537.3	533.1	533.1	535.5	536.1
47.5°	629.2	592.0	561.9	534.3	518.7	510.2	505.4	503.0	503.0	506.0	508.4
50°	589.0	552.3	522.9	498.8	484.4	476.6	472.4	471.2	472.4	472.4	476.6
52.5°	545.1	513.2	484.4	465.2	448.3	441.1	439.3	437.5	438.1	440.5	441.7
55°	502.4	473.0	445.3	426.1	414.1	409.3	403.9	404.5	403.3	404.5	404.5
57.5°	459.2	433.3	406.3	390.6	380.4	373.2	367.2	369.0	367.2	367.2	366.6
60°	417.7	388.8	368.4	354.6	342.6	336.6	331.1	332.3	330.5	329.3	326.9
62.5°	372.6	349.8	330.5	317.3	308.3	301.1	295.7	293.9	289.1	284.3	278.3
65°	329.3	309.5	292.1	279.5	270.4	265.0	260.8	257.2	248.2	238.6	233.8
67.5°	286.7	272.2	255.4	244.6	237.4	230.2	222.4	215.8	206.7	200.7	197.7
70°	245.8	232.0	218.2	207.9	200.1	193.5	184.5	180.3	174.3	171.9	168.9
72.5°	206.7	194.1	181.5	172.5	164.1	159.3	152.7	148.4	146.6	146.0	143.0
75°	167.1	156.9	147.2	138.8	132.2	128.6	125.6	122.6	121.4	116.0	113.0
77.5°	128.6	121.4	115.4	108.8	104.6	102.2	95.6	91.4	88.9	85.9	85.3
80°	95.0	90.1	84.1	80.5	73.9	71.5	69.1	68.5	67.9	67.3	66.7
82.5°	65.5	60.7	54.7	52.9	52.3	51.1	49.9	49.3	48.7	49.3	49.3
85°	36.1	33.7	33.7	33.1	32.5	31.9	31.3	31.3	30.7	31.3	30.7
87.5°	15.0	14.4	14.4	13.2	13.8	13.8	13.2	13.2	13.8	12.6	12.6
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: P242739

CATALOG NUMBER: S124RDRP-S1020D830-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1491.7	1491.7	1491.7	1491.7
2.5°	1406.9	1408.1	1403.9	1402.7
5°	1321.0	1319.8	1316.8	1317.4
7.5°	1246.5	1242.2	1245.2	1240.4
10°	1179.1	1172.5	1167.1	1162.3
12.5°	1087.2	1081.8	1074.0	1077.0
15°	1001.2	992.2	977.8	979.6
17.5°	924.3	925.5	917.1	919.5
20°	867.2	863.0	863.6	861.8
22.5°	827.6	822.2	816.7	812.5
25°	781.9	778.3	772.9	771.7
27.5°	741.6	741.0	738.6	735.6
30°	707.4	706.2	705.0	703.2
32.5°	676.7	676.1	674.9	675.5
35°	647.9	647.3	646.1	645.5
37.5°	620.8	622.6	621.4	621.4
40°	592.6	593.2	594.4	593.8
42.5°	569.1	569.1	570.9	568.5
45°	540.3	543.9	543.3	543.3
47.5°	509.6	513.8	514.4	514.4
50°	479.6	478.4	480.2	479.6
52.5°	442.9	443.5	442.9	442.3
55°	405.1	405.7	404.5	405.1
57.5°	364.8	362.4	364.2	363.0
60°	320.9	316.1	314.9	312.5
62.5°	271.6	268.6	263.8	266.8
65°	229.0	226.6	224.8	227.2
67.5°	194.7	193.5	193.5	192.3
70°	168.9	167.1	167.1	165.9
72.5°	142.4	140.6	141.2	140.6
75°	109.4	106.4	106.4	107.0
77.5°	85.3	84.7	85.9	84.1
80°	66.7	66.1	65.5	67.3
82.5°	48.1	48.1	48.1	50.5
85°	31.3	30.0	31.3	30.0
87.5°	13.8	13.2	12.6	13.2
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P242739
 CATALOG NUMBER: S124RDRP-S1020D830-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	18.08	19.60	18.45	19.92	20.23	19.90	21.42	20.27	21.74	22.05
	3H	19.31	20.67	19.69	21.00	21.36	21.35	22.72	21.73	23.05	23.41
	4H	19.74	21.02	20.14	21.37	21.75	21.87	23.15	22.27	23.50	23.88
	6H	20.01	21.20	20.43	21.56	21.96	22.22	23.40	22.63	23.77	24.16
	8H	20.09	21.22	20.52	21.61	22.01	22.32	23.45	22.75	23.84	24.24
	12H	20.14	21.22	20.58	21.60	22.03	22.38	23.46	22.81	23.84	24.27
4H	2H	19.34	20.62	19.74	20.97	21.35	20.41	21.69	20.81	22.04	22.42
	3H	20.58	21.64	20.99	22.04	22.44	22.15	23.21	22.56	23.61	24.01
	4H	21.04	22.00	21.47	22.41	22.85	22.78	23.73	23.21	24.15	24.59
	6H	21.37	22.20	21.82	22.64	23.10	23.23	24.06	23.69	24.50	24.96
	8H	21.46	22.24	21.92	22.68	23.15	23.37	24.14	23.83	24.59	25.06
	12H	21.53	22.22	22.01	22.70	23.17	23.46	24.15	23.94	24.63	25.10
8H	4H	21.44	22.22	21.91	22.66	23.13	22.89	23.66	23.35	24.11	24.58
	6H	21.83	22.47	22.33	22.96	23.44	23.43	24.07	23.93	24.56	25.04
	8H	21.97	22.54	22.48	23.05	23.54	23.62	24.20	24.13	24.71	25.19
	12H	22.08	22.59	22.59	23.08	23.64	23.77	24.28	24.28	24.77	25.33
12H	4H	21.48	22.17	21.96	22.65	23.12	22.88	23.57	23.36	24.05	24.52
	6H	21.88	22.45	22.39	22.96	23.45	23.42	23.99	23.93	24.50	24.99
	8H	22.06	22.57	22.57	23.06	23.62	23.65	24.16	24.16	24.65	25.21