

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: P243619

Luminaire Tested: S124RDRP-H1020D935-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243619
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-70)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-H1020D935-X4F0-XX-UDD-A-W
Description: DEFINE 4 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

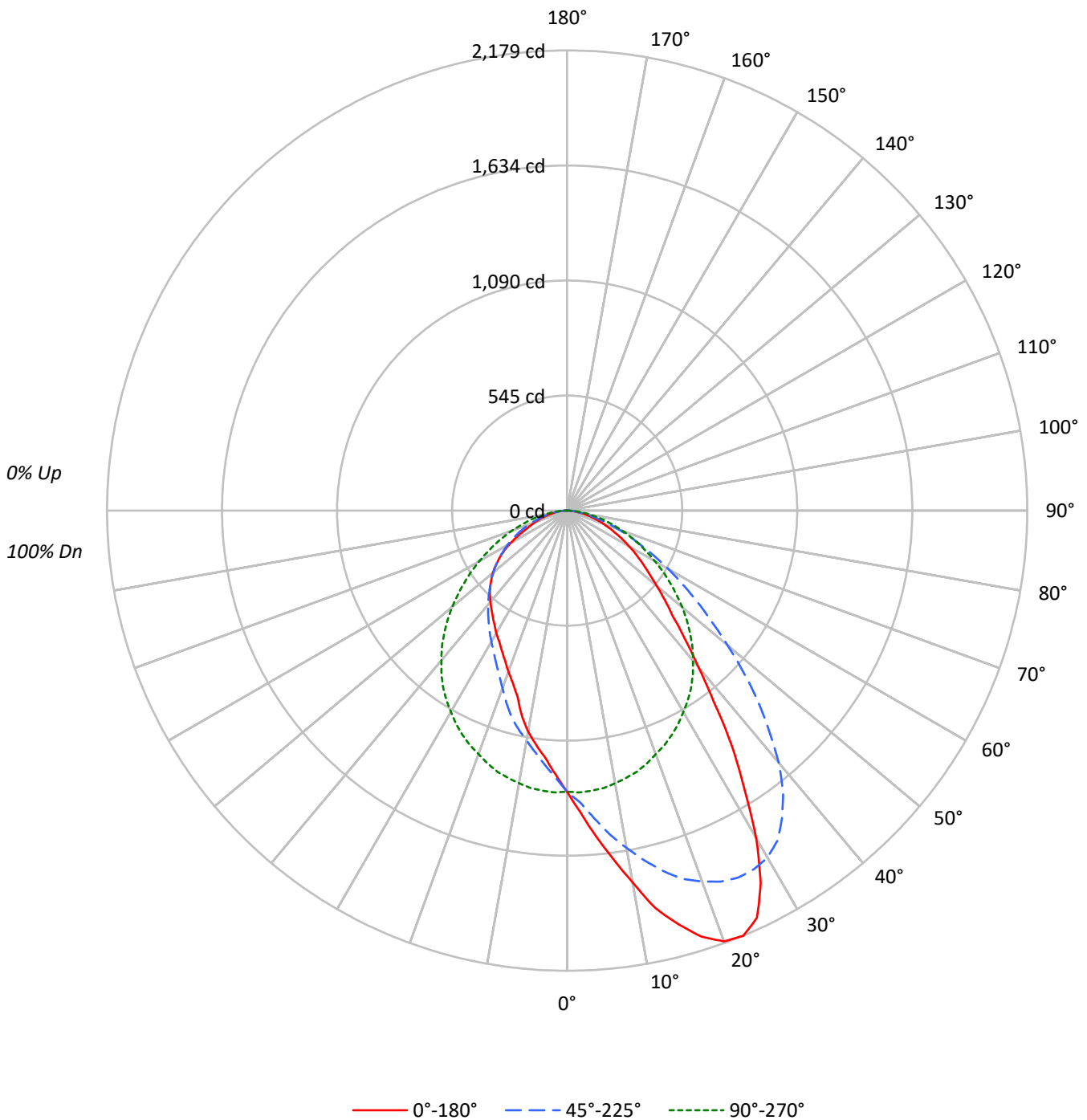
Lumens per Lamp: N/A
Luminaire Lumens: 3435.6 lumens
Efficiency: N/A
Efficacy: 109.1 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.23 / 1.39
Luminous Opening: Rectangular (W 3.88' x L: 0.31' x H: 0')
CIE Type: Direct

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	110	105	102	98	107	103	100	97	99	96	93	95	93	91	92	90	88					86				
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75					73				
3	92	83	75	69	90	81	74	68	78	72	67	76	70	66	73	69	65					63				
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57					55				
5	79	66	58	52	77	65	57	51	63	56	51	61	55	50	60	54	50					48				
6	73	60	52	46	71	59	51	45	58	50	45	56	50	45	54	49	44					42				
7	68	55	46	41	66	54	46	40	53	45	40	51	45	40	50	44	40					38				
8	63	50	42	36	62	50	42	36	48	41	36	47	41	36	46	40	36					34				
9	59	46	38	33	58	46	38	33	45	38	33	43	37	33	42	37	32					31				
10	56	43	35	30	54	42	35	30	41	35	30	40	34	30	39	34	30					28				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	11833	11833	11833	11833	11833
5°	13783	13039	11883	10786	10491
10°	16142	14640	11832	9980	9591
15°	18652	16276	11773	9326	8376
20°	20535	17677	11607	8468	7679
25°	20865	18806	11500	7814	7178
30°	18366	19473	11296	7353	6885
35°	14737	19255	11104	7025	6659
40°	11211	18087	10748	6743	6556
45°	8901	16069	10355	6509	6478
50°	7642	13699	9842	6300	6365
55°	6748	11632	9205	6081	6056
60°	6044	9833	8542	5806	5548
65°	5321	8089	7894	5408	4667
70°	4743	6669	7168	4959	4202
75°	4132	5234	6515	4362	3740
80°	3501	4008	5600	3691	3450
85°	3070	3274	4814	3590	3488

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 55°
 Vertical Angle: 45°
 Luminance: 17294 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.2	3.8
10°-20°	391.7	11.4
20°-30°	611.3	17.8
30°-40°	681.7	19.8
40°-50°	612.8	17.8
50°-60°	484.2	14.1
60°-70°	321.6	9.4
70°-80°	161.2	4.7
80°-90°	42.0	1.2
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°	1132.2	33.0
0°-40°	1813.8	52.8
0°-60°	2910.8	84.7
0°-90°	3435.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3435.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1331	1331	1331	1331	1331	
5°	1545	1461	1332	1209	1176	155
15°	2027	1769	1279	1013	910	576
25°	2127	1917	1172	797	732	952
35°	1358	1774	1023	647	614	844
45°	708	1278	824	518	515	561
55°	435	751	594	392	391	392
65°	253	385	375	257	222	253
75°	120	152	190	127	109	129
85°	30	32	47	35	34	34
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°	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2
2.5°	1429.6	1424.5	1423.9	1417.2	1416.7	1410.0	1407.9	1402.2	1390.8	1382.0	1382.5
5°	1544.7	1540.6	1540.1	1533.3	1531.2	1523.0	1510.0	1494.4	1476.3	1461.3	1451.4
7.5°	1662.9	1670.2	1662.4	1662.4	1647.4	1637.5	1612.1	1599.2	1568.1	1546.3	1523.5
10°	1788.4	1795.1	1792.0	1785.8	1766.1	1745.9	1719.4	1694.0	1656.2	1622.0	1599.2
12.5°	1928.3	1908.1	1921.1	1901.9	1885.8	1853.7	1828.3	1777.5	1747.4	1697.6	1653.1
15°	2026.8	2019.0	2018.5	2005.6	1987.9	1952.7	1925.2	1872.3	1821.0	1768.7	1718.4
17.5°	2114.9	2116.0	2108.7	2088.0	2065.2	2031.0	1993.6	1946.5	1887.9	1829.8	1770.2
20°	2170.9	2171.4	2166.2	2155.4	2130.5	2099.4	2061.0	1999.3	1933.0	1868.7	1809.1
22.5°	2179.2	2180.8	2179.2	2172.5	2155.4	2130.0	2094.7	2042.4	1975.5	1901.9	1830.9
25°	2127.4	2132.6	2133.1	2142.4	2133.6	2123.7	2097.8	2053.8	1992.1	1917.4	1840.2
27.5°	1985.3	1999.9	2013.3	2029.9	2044.9	2058.4	2060.5	2037.2	1984.3	1914.8	1841.2
30°	1789.4	1806.5	1833.5	1851.1	1897.7	1927.3	1967.2	1976.0	1950.6	1897.2	1826.2
32.5°	1561.3	1579.5	1589.8	1647.9	1714.8	1763.0	1829.3	1868.7	1878.6	1853.2	1795.1
35°	1358.1	1361.2	1369.0	1434.8	1501.2	1574.3	1656.7	1725.1	1771.8	1774.4	1745.9
37.5°	1140.4	1144.0	1174.6	1224.9	1282.4	1362.8	1457.6	1555.1	1640.6	1680.0	1671.7
40°	966.2	965.2	997.9	1041.4	1097.4	1180.8	1278.8	1385.1	1476.3	1558.7	1578.4
42.5°	825.2	828.9	856.9	882.3	936.2	994.7	1099.5	1209.9	1327.0	1417.2	1477.3
45°	708.1	717.4	736.6	760.4	800.9	854.8	940.3	1050.2	1169.9	1278.3	1350.3
47.5°	627.2	629.8	639.7	669.2	696.2	739.7	812.8	906.1	1012.4	1133.7	1228.5
50°	552.6	558.8	562.4	580.0	606.5	648.0	704.5	773.9	879.1	990.6	1109.3
52.5°	488.3	491.9	498.7	514.7	535.5	564.5	609.1	670.2	757.8	861.0	973.0
55°	435.4	435.9	442.7	454.1	470.2	492.4	535.0	579.0	656.8	750.6	852.2
57.5°	387.7	384.6	390.8	397.6	413.1	432.3	459.8	504.9	565.5	645.4	737.1
60°	340.0	342.6	342.1	349.9	358.2	377.4	400.7	430.2	480.0	553.1	630.8
62.5°	295.5	294.9	300.1	304.8	310.5	326.1	345.2	369.6	408.5	462.4	537.5
65°	253.0	254.0	258.1	261.8	268.0	277.8	292.4	312.1	343.2	384.6	447.9
67.5°	214.6	218.2	220.3	221.3	227.0	234.3	246.7	262.8	284.1	317.2	370.1
70°	182.5	183.5	184.5	188.2	190.8	194.9	204.2	213.0	232.2	256.6	294.9
72.5°	152.4	151.4	154.5	155.5	156.5	160.7	166.4	171.1	183.5	204.2	228.1
75°	120.3	120.8	121.3	122.9	127.0	127.5	130.1	135.3	144.1	152.4	168.5
77.5°	90.2	91.8	91.2	92.8	94.3	95.9	96.9	101.6	107.8	114.6	122.3
80°	68.4	68.4	68.4	69.5	68.4	72.1	72.1	73.6	75.2	78.3	84.0
82.5°	46.7	47.7	48.2	48.7	49.2	49.2	49.8	50.8	52.9	53.9	55.5
85°	30.1	29.0	29.5	29.5	29.5	29.5	30.6	31.6	31.6	32.1	33.7
87.5°	13.5	13.5	13.5	13.5	13.0	13.5	14.0	14.0	14.5	14.5	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



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2
2.5°	1379.4	1377.8	1370.0	1361.7	1354.0	1346.2	1343.6	1335.8	1326.5	1318.2	1308.9
5°	1441.1	1428.6	1411.5	1393.9	1375.7	1359.2	1346.2	1331.7	1315.1	1295.4	1279.8
7.5°	1503.3	1480.4	1452.5	1426.5	1395.4	1370.6	1345.7	1324.9	1301.1	1273.1	1251.9
10°	1563.9	1526.1	1491.9	1450.9	1411.5	1377.3	1345.7	1310.9	1279.3	1249.3	1219.7
12.5°	1612.1	1574.3	1525.0	1474.7	1423.9	1379.4	1336.9	1295.9	1256.5	1220.2	1187.6
15°	1667.1	1612.6	1552.0	1496.5	1427.1	1372.1	1323.4	1279.3	1234.2	1190.2	1154.4
17.5°	1707.5	1643.2	1568.1	1504.3	1437.4	1369.0	1310.4	1255.0	1203.1	1157.0	1120.2
20°	1738.6	1662.4	1587.2	1506.4	1426.5	1356.6	1290.7	1227.0	1174.6	1124.3	1085.5
22.5°	1752.1	1671.7	1588.3	1500.7	1415.7	1336.3	1267.9	1202.1	1143.0	1091.2	1046.1
25°	1757.8	1669.7	1583.1	1483.6	1397.5	1316.6	1240.4	1172.5	1111.9	1053.3	1008.7
27.5°	1753.1	1658.8	1559.2	1465.4	1368.0	1288.7	1207.8	1138.8	1075.6	1019.1	969.3
30°	1740.7	1633.9	1534.9	1429.6	1335.8	1252.4	1173.6	1100.5	1036.7	979.2	929.9
32.5°	1708.5	1605.9	1493.4	1390.8	1289.7	1207.3	1135.7	1063.7	998.9	938.8	891.1
35°	1668.6	1568.1	1450.4	1343.1	1243.0	1159.6	1087.5	1023.3	959.5	895.7	847.0
37.5°	1618.3	1516.2	1402.7	1287.1	1189.1	1108.3	1042.4	977.6	914.4	855.8	801.4
40°	1550.4	1457.1	1343.1	1227.0	1128.5	1050.7	985.9	926.3	870.3	812.8	754.2
42.5°	1465.9	1394.9	1277.3	1162.7	1066.3	989.0	931.5	878.1	824.2	765.1	712.2
45°	1375.7	1315.1	1208.3	1092.7	1001.0	925.8	870.9	823.7	772.9	720.5	665.1
47.5°	1274.1	1229.0	1136.8	1022.2	925.8	861.5	810.7	767.7	721.6	674.9	621.0
50°	1159.6	1132.1	1053.3	949.1	857.4	792.1	750.1	711.7	672.3	625.7	579.5
52.5°	1045.0	1039.8	966.2	874.5	787.9	727.3	686.3	651.1	618.9	574.9	536.0
55°	924.8	940.3	879.1	794.7	717.4	658.8	622.6	594.0	566.1	528.7	491.4
57.5°	818.0	835.6	793.6	715.9	643.8	594.0	562.9	537.0	512.7	478.5	453.6
60°	699.8	731.9	709.6	638.6	574.9	530.3	501.3	480.5	460.3	430.8	409.0
62.5°	606.5	628.8	615.8	562.9	506.4	470.2	444.2	425.1	409.0	386.2	364.9
65°	506.4	534.4	527.7	493.0	443.2	410.0	390.3	375.3	358.7	340.6	322.9
67.5°	416.2	445.3	443.7	419.9	383.1	355.6	336.9	326.1	312.6	294.9	284.1
70°	334.9	361.8	362.9	350.9	325.0	299.1	285.6	275.8	265.4	252.4	244.7
72.5°	260.2	284.6	288.7	283.0	266.4	249.3	237.4	230.7	221.9	211.0	204.2
75°	194.4	212.0	221.9	219.3	212.5	201.1	194.4	189.7	180.9	173.1	167.4
77.5°	138.4	152.4	162.2	166.4	163.3	158.6	152.4	148.8	139.4	135.8	132.7
80°	92.8	105.2	114.0	116.6	118.2	117.2	111.4	109.4	104.7	103.2	100.0
82.5°	57.0	63.8	70.0	76.7	79.8	79.8	76.7	77.2	73.1	71.0	70.0
85°	34.7	36.3	37.3	42.5	46.7	48.2	46.7	47.2	45.6	44.1	42.5
87.5°	16.1	16.1	16.6	17.6	18.7	21.8	22.8	24.4	22.3	22.3	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°	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2
2.5°	1303.2	1296.4	1291.2	1283.0	1276.2	1265.3	1261.7	1261.7	1263.8	1261.2	1263.8
5°	1269.0	1256.5	1243.0	1231.1	1218.2	1208.8	1199.5	1197.4	1196.4	1190.2	1190.7
7.5°	1234.7	1218.2	1201.1	1185.5	1169.4	1154.9	1145.1	1140.9	1137.3	1133.1	1128.5
10°	1197.9	1178.8	1158.5	1140.9	1125.4	1105.7	1095.8	1092.7	1082.3	1080.3	1073.0
12.5°	1159.1	1139.4	1119.1	1096.3	1081.3	1062.1	1047.6	1040.9	1031.0	1023.8	1012.9
15°	1128.5	1103.6	1076.6	1054.4	1034.7	1013.4	993.7	980.7	967.8	947.6	937.7
17.5°	1090.6	1062.1	1038.8	1015.0	986.4	955.3	932.0	912.8	898.8	882.3	872.4
20°	1049.7	1023.3	994.2	960.5	930.5	895.2	874.0	857.9	847.0	837.2	832.0
22.5°	1013.4	982.8	942.9	910.8	868.8	840.8	823.7	813.3	802.9	792.6	787.4
25°	974.0	938.2	889.5	850.1	818.5	796.7	780.1	770.3	759.4	753.2	745.4
27.5°	935.1	889.0	840.3	804.5	779.6	754.2	740.2	732.4	724.2	715.3	709.1
30°	888.0	835.6	795.2	762.5	737.6	716.4	706.0	694.6	687.4	682.2	678.5
32.5°	838.7	788.4	751.6	723.6	699.3	683.2	670.2	663.0	656.8	651.1	646.9
35°	792.6	743.9	712.8	685.8	665.6	647.4	637.6	630.8	625.7	621.0	618.9
37.5°	747.0	705.5	671.8	650.5	629.3	614.8	605.4	599.2	596.1	591.5	592.0
40°	701.9	664.5	637.6	613.2	593.5	581.1	573.8	571.2	566.6	565.0	566.6
42.5°	661.4	627.2	601.3	578.5	561.4	549.5	543.8	540.1	538.6	538.1	538.6
45°	622.0	589.9	565.0	546.4	528.7	517.8	513.2	510.6	509.0	511.6	512.1
47.5°	582.6	553.6	531.3	509.6	495.0	487.3	482.6	480.5	482.1	483.1	486.7
50°	543.8	516.8	493.5	474.3	462.9	455.6	454.1	450.5	453.1	454.6	457.2
52.5°	504.4	480.0	459.3	441.1	429.2	424.5	420.9	419.4	423.0	423.0	425.6
55°	464.5	443.2	424.0	407.4	398.1	392.4	389.8	387.7	389.8	390.3	389.8
57.5°	427.1	406.9	386.7	372.7	364.9	358.7	356.1	355.1	354.6	356.6	356.1
60°	387.7	368.6	352.5	338.0	330.2	326.6	320.9	321.9	321.9	321.9	316.7
62.5°	348.3	329.2	315.2	305.3	296.0	289.8	288.7	287.2	284.1	283.5	276.8
65°	307.9	293.4	281.5	271.6	262.3	257.1	255.6	250.9	247.3	240.5	235.9
67.5°	270.6	260.2	246.2	237.9	230.2	223.9	218.2	214.6	207.3	200.6	196.5
70°	233.3	222.4	213.0	204.2	196.5	190.8	184.0	177.3	172.6	168.5	165.4
72.5°	195.9	186.6	178.8	170.5	162.2	156.5	151.4	146.2	144.1	142.0	140.5
75°	161.2	152.4	145.1	138.4	133.7	127.0	124.4	122.3	120.3	117.7	114.6
77.5°	127.5	120.8	115.1	109.4	105.2	101.6	99.5	93.3	88.1	87.1	86.0
80°	94.9	89.7	86.0	81.9	77.2	72.1	70.5	68.4	67.4	67.4	67.9
82.5°	66.4	63.2	59.1	55.5	53.9	51.8	51.8	51.3	50.8	51.3	51.3
85°	40.4	36.3	35.2	34.7	35.2	35.2	35.2	35.2	34.7	35.2	34.2
87.5°	17.6	19.2	19.7	18.1	18.7	17.6	18.1	18.1	18.1	18.7	18.1
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: P243619

CATALOG NUMBER: S124RDRP-H1020D935-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1331.2	1331.2	1331.2	1331.2
2.5°	1260.7	1260.7	1255.5	1251.3
5°	1189.6	1182.9	1181.9	1175.7
7.5°	1123.3	1122.3	1119.7	1119.7
10°	1070.4	1066.8	1063.2	1062.6
12.5°	995.8	1001.0	994.7	993.2
15°	930.5	926.3	921.1	910.2
17.5°	869.8	862.0	860.0	855.3
20°	822.1	816.4	814.4	811.8
22.5°	777.0	776.0	769.8	768.2
25°	743.9	738.7	734.5	731.9
27.5°	707.6	703.9	701.9	697.7
30°	674.4	673.4	670.8	670.8
32.5°	644.3	641.2	641.2	640.7
35°	616.9	617.9	614.8	613.7
37.5°	590.9	589.4	589.9	588.9
40°	565.5	564.5	564.5	565.0
42.5°	539.6	540.1	541.2	541.2
45°	513.7	514.2	515.3	515.3
47.5°	489.3	488.3	489.3	488.3
50°	458.2	461.3	460.8	460.3
52.5°	426.6	425.6	427.7	427.1
55°	392.4	390.8	392.9	390.8
57.5°	354.0	354.6	354.6	353.5
60°	315.7	314.1	312.1	312.1
62.5°	271.1	266.4	263.3	265.4
65°	228.1	224.5	223.4	221.9
67.5°	193.9	189.7	188.2	187.6
70°	164.3	162.2	161.7	161.7
72.5°	139.4	139.4	137.9	136.8
75°	113.5	111.4	108.9	108.9
77.5°	85.0	84.5	84.0	84.0
80°	66.4	66.4	66.9	67.4
82.5°	49.8	50.3	50.8	50.8
85°	33.7	33.7	34.2	34.2
87.5°	18.1	18.1	18.1	17.6
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P243619
 CATALOG NUMBER: S124RDRP-H1020D935-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	17.92	19.46	18.29	19.77	20.09	19.62	21.16	19.99	21.47	21.78
	3H	19.16	20.54	19.54	20.86	21.22	21.10	22.48	21.48	22.81	23.17
	4H	19.59	20.88	19.99	21.23	21.61	21.64	22.94	22.04	23.29	23.66
	6H	19.87	21.06	20.28	21.43	21.82	22.03	23.23	22.44	23.59	23.98
	8H	19.95	21.09	20.38	21.48	21.88	22.15	23.29	22.58	23.68	24.08
	12H	20.01	21.10	20.44	21.48	21.91	22.23	23.32	22.66	23.70	24.13
4H	2H	19.13	20.43	19.53	20.77	21.15	20.15	21.44	20.55	21.79	22.17
	3H	20.40	21.47	20.81	21.87	22.28	21.92	23.00	22.34	23.40	23.80
	4H	20.87	21.84	21.30	22.25	22.69	22.58	23.55	23.02	23.96	24.40
	6H	21.20	22.04	21.66	22.49	22.95	23.08	23.92	23.54	24.36	24.82
	8H	21.31	22.09	21.77	22.54	23.00	23.24	24.02	23.70	24.47	24.93
	12H	21.38	22.09	21.87	22.56	23.03	23.35	24.05	23.83	24.53	25.00
8H	4H	21.28	22.07	21.75	22.51	22.98	22.71	23.50	23.17	23.94	24.41
	6H	21.68	22.33	22.18	22.82	23.30	23.31	23.96	23.80	24.45	24.93
	8H	21.83	22.41	22.34	22.92	23.41	23.53	24.11	24.04	24.62	25.11
	12H	21.95	22.46	22.46	22.96	23.52	23.71	24.22	24.22	24.71	25.28
12H	4H	21.33	22.03	21.81	22.51	22.98	22.70	23.40	23.18	23.88	24.35
	6H	21.74	22.32	22.25	22.83	23.32	23.30	23.89	23.82	24.39	24.88
	8H	21.93	22.44	22.44	22.94	23.50	23.56	24.08	24.07	24.57	25.13