

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: P242421

Luminaire Tested: S122RDRP-S1005D940-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242421
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-29)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S1005D940-X4F0-XX-UDD-A-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

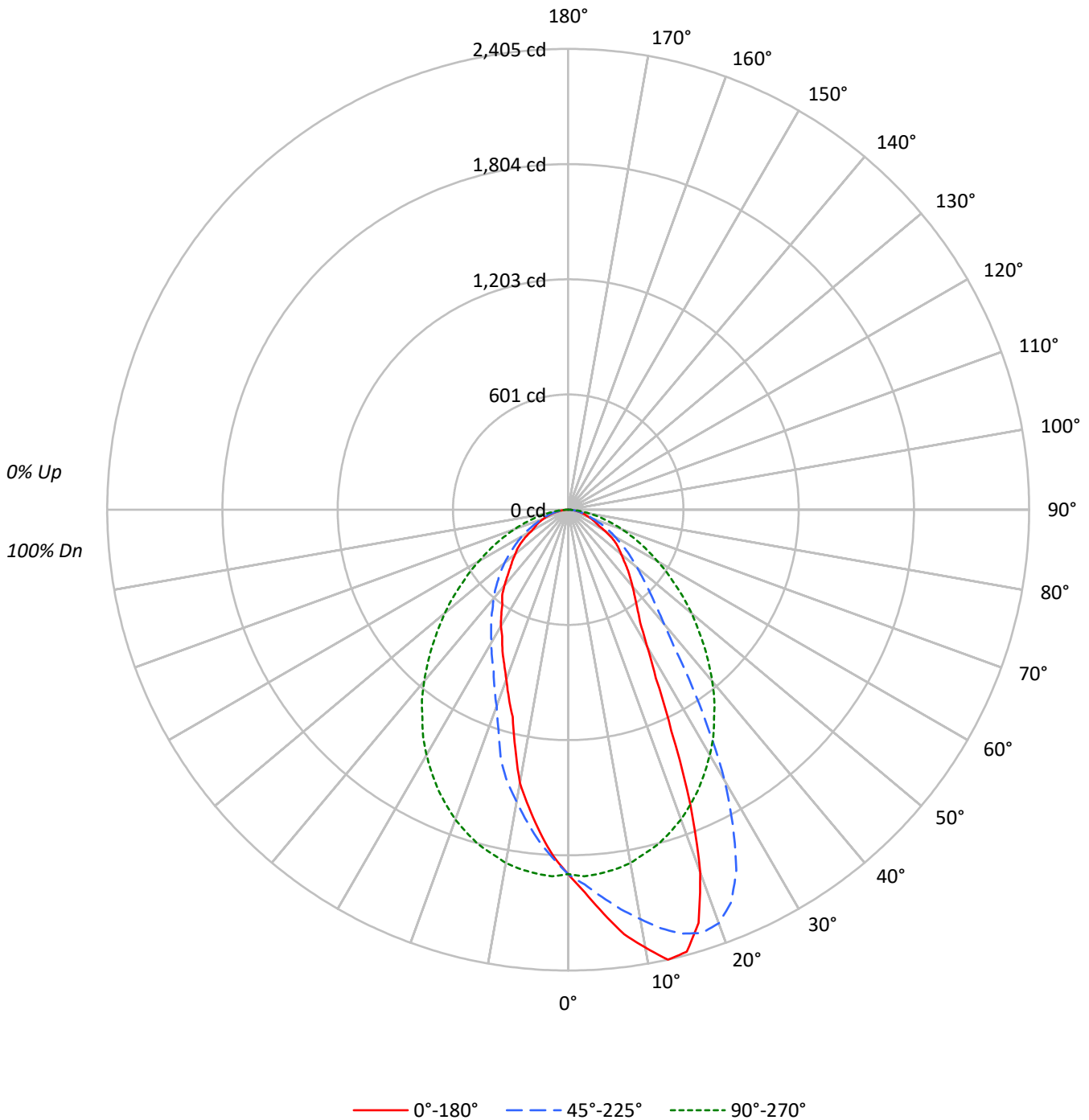
Lumens per Lamp: N/A
Luminaire Lumens: 3286.5 lumens
Efficiency: N/A
Efficacy: 80.0 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 1.16 / 1.02
Luminous Opening: Rectangular (W 3.88' x L: 0.15' x H: 0')
CIE Type: Direct

Input Watts (W): 41.1
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	111	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89					87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78					76				
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68					66				
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60					59				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54					52				
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49					47				
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	54	48	44					42				
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40					39				
9	62	50	43	38	61	50	42	37	49	42	37	47	41	37	47	41	37					35				
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34					33				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	36227	36227	36227	36227	36227
5°	40459	38790	36453	33218	32321
10°	44888	41961	36198	29935	28016
15°	47094	45166	35667	26700	22074
20°	40828	46561	34881	22115	19101
25°	26778	43625	33806	19361	17055
30°	18022	35915	32499	17631	15436
35°	14598	26229	30854	16258	13922
40°	12982	19275	29067	15001	12883
45°	11747	16020	26970	13902	11500
50°	10692	13883	24889	12846	10653
55°	10052	12291	22582	11610	9919
60°	8408	10701	20469	10648	8309
65°	7090	9532	18587	9469	8041
70°	6549	7580	16596	8354	7580
75°	6130	6859	14447	7882	7006
80°	5649	6230	11891	6889	6230
85°	5201	5354	9398	5486	5486

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 70°
 Vertical Angle: 45°
 Luminance: 39286 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.4	5.5
10°-20°	503.5	15.3
20°-30°	648.0	19.7
30°-40°	614.7	18.7
40°-50°	526.8	16.0
50°-60°	401.3	12.2
60°-70°	253.1	7.7
70°-80°	126.3	3.8
80°-90°	32.5	1.0
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°	1331.9	40.5
0°-40°	1946.6	59.2
0°-60°	2874.7	87.5
0°-90°	3286.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3286.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1902	1902	1902	1902	1902	
5°	2116	2029	1906	1737	1690	208
15°	2388	2290	1809	1354	1119	649
25°	1274	2076	1608	921	812	602
35°	628	1128	1327	699	599	400
45°	436	595	1001	516	427	337
55°	303	370	680	350	299	267
65°	157	212	412	210	178	159
75°	83	93	196	107	95	88
85°	24	24	43	25	25	26
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°	1901.9	1901.9	1901.9	1901.9	1901.9	1901.9	1901.9	1901.9	1901.9	1901.9	1901.9
2.5°	1998.3	2000.3	2002.3	1997.7	1997.7	1993.7	1985.1	1978.5	1960.0	1957.4	1957.4
5°	2116.0	2114.6	2117.3	2108.7	2096.8	2094.2	2081.6	2065.1	2047.9	2028.7	2024.8
7.5°	2234.9	2227.0	2223.7	2227.7	2215.1	2197.9	2176.8	2156.9	2127.2	2102.8	2087.6
10°	2320.8	2342.6	2329.4	2306.3	2310.9	2279.9	2263.3	2234.9	2211.1	2169.5	2160.2
12.5°	2405.4	2410.7	2408.7	2398.1	2389.6	2370.4	2346.6	2322.8	2273.9	2237.6	2199.2
15°	2388.2	2400.8	2404.1	2400.1	2403.4	2402.1	2390.2	2369.7	2331.4	2290.4	2254.7
17.5°	2261.4	2275.9	2287.8	2298.4	2314.9	2347.3	2357.2	2361.1	2345.3	2316.2	2286.5
20°	2014.2	1999.7	2060.5	2091.5	2118.0	2184.0	2240.9	2262.7	2297.7	2297.0	2290.4
22.5°	1664.0	1671.9	1728.7	1767.1	1856.9	1923.0	1989.8	2086.9	2162.9	2219.1	2253.4
25°	1274.1	1299.2	1356.7	1406.9	1492.8	1615.7	1727.4	1856.9	1979.2	2075.7	2167.5
27.5°	991.2	994.5	1046.8	1097.6	1150.5	1256.9	1406.2	1561.5	1736.0	1861.6	2020.2
30°	819.4	815.5	834.6	863.0	906.7	984.6	1090.4	1242.4	1416.2	1632.9	1825.9
32.5°	697.8	699.2	712.4	731.5	765.9	812.2	876.3	992.6	1154.5	1366.6	1601.2
35°	627.8	627.1	637.7	652.9	668.1	701.8	751.4	816.1	929.1	1128.0	1359.3
37.5°	569.6	572.9	577.6	587.5	606.0	625.8	656.9	702.5	788.4	911.9	1119.4
40°	522.1	523.4	530.6	538.6	548.5	563.0	587.5	622.5	681.3	775.2	917.2
42.5°	478.4	479.8	484.4	491.7	498.9	513.5	532.6	561.7	606.6	674.7	785.7
45°	436.1	436.1	440.8	444.1	452.7	465.9	482.4	507.5	540.6	594.7	672.7
47.5°	395.2	395.2	398.5	404.4	410.4	420.9	438.1	459.3	483.1	527.3	596.7
50°	360.8	361.5	363.5	368.1	371.4	380.6	393.2	411.0	436.1	468.5	524.0
52.5°	333.1	332.4	335.0	336.4	338.3	344.3	352.9	368.1	389.9	417.0	460.6
55°	302.7	300.0	304.0	307.3	309.3	311.9	317.2	327.1	346.3	370.1	404.4
57.5°	267.0	265.7	267.6	270.9	276.9	283.5	286.8	293.4	303.3	321.8	358.2
60°	220.7	220.7	226.7	228.6	235.9	245.2	254.4	259.7	269.6	280.9	306.0
62.5°	179.7	180.4	182.4	184.4	187.7	199.6	213.4	226.7	235.9	246.5	261.0
65°	157.3	158.6	158.6	159.9	162.6	165.2	170.5	179.7	196.3	211.5	224.0
67.5°	137.5	137.5	138.1	139.4	140.1	143.4	145.4	150.0	153.3	170.5	187.7
70°	117.6	119.6	118.9	120.3	120.9	122.3	124.9	126.9	132.8	136.1	145.4
72.5°	99.1	100.4	100.4	101.1	103.1	103.1	105.1	107.1	110.4	113.0	117.0
75°	83.3	82.6	83.3	84.6	85.2	85.9	85.9	88.6	90.5	93.2	96.5
77.5°	67.4	68.1	68.1	68.1	68.1	69.4	69.4	70.7	72.7	74.0	76.0
80°	51.5	52.2	51.5	52.2	52.9	53.5	52.9	53.5	55.5	56.8	56.8
82.5°	37.0	37.0	37.7	37.7	37.7	37.7	39.0	39.0	40.3	39.6	40.3
85°	23.8	23.1	23.1	23.1	23.8	24.5	23.8	23.8	24.5	24.5	24.5
87.5°	10.6	11.2	11.2	11.2	11.2	11.2	11.2	11.9	11.2	11.9	11.2
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°	1901.9	1901.9	1901.9	1901.9	1901.9	1901.9	1901.9	1901.9	1901.9	1901.9	1901.9
2.5°	1958.7	1953.4	1948.8	1936.9	1930.9	1917.7	1915.7	1915.1	1897.9	1881.4	1876.8
5°	2014.2	2003.6	1987.8	1969.3	1950.1	1930.3	1917.1	1906.5	1880.1	1854.9	1840.4
7.5°	2069.1	2049.9	2024.8	1993.1	1966.0	1934.2	1912.4	1892.6	1856.3	1823.2	1801.4
10°	2131.8	2094.8	2058.5	2010.2	1972.6	1935.6	1901.2	1871.5	1829.2	1781.6	1747.9
12.5°	2170.8	2129.2	2075.7	2028.7	1977.2	1927.6	1878.7	1838.4	1786.9	1737.3	1695.7
15°	2205.2	2161.6	2100.8	2033.4	1970.6	1909.1	1856.3	1808.7	1743.9	1685.1	1636.2
17.5°	2236.9	2176.8	2114.0	2036.0	1966.6	1892.0	1825.2	1765.7	1695.0	1625.6	1570.1
20°	2250.8	2191.3	2116.0	2038.0	1952.1	1860.2	1786.9	1720.8	1643.5	1566.2	1500.1
22.5°	2242.2	2199.2	2113.3	2016.2	1927.6	1830.5	1745.2	1665.9	1578.1	1498.8	1419.5
25°	2197.3	2181.4	2102.1	2000.3	1899.9	1788.2	1692.4	1608.5	1510.7	1426.1	1342.8
27.5°	2114.6	2137.8	2081.6	1971.2	1862.9	1742.6	1638.2	1543.7	1443.9	1349.4	1266.1
30°	1983.8	2062.4	2041.3	1940.9	1816.0	1698.3	1577.4	1477.6	1369.2	1271.4	1189.5
32.5°	1804.7	1947.5	1978.5	1898.6	1768.4	1636.2	1508.0	1408.9	1294.6	1190.2	1110.9
35°	1612.4	1806.7	1895.9	1842.4	1712.9	1573.4	1442.6	1326.9	1213.3	1111.5	1032.2
37.5°	1384.4	1643.5	1780.9	1775.0	1651.4	1509.3	1367.3	1252.9	1136.0	1035.5	952.9
40°	1163.7	1450.5	1644.1	1687.1	1586.6	1430.0	1286.0	1169.0	1055.3	957.5	859.1
42.5°	965.5	1250.9	1500.1	1582.7	1508.0	1352.7	1208.0	1084.4	974.7	883.5	782.4
45°	812.8	1062.6	1325.0	1458.4	1414.2	1270.1	1117.5	1001.2	897.4	817.4	721.0
47.5°	703.8	885.5	1149.2	1323.6	1318.4	1181.6	1029.6	917.9	820.1	746.1	664.1
50°	613.2	766.6	981.3	1186.2	1203.4	1093.0	950.3	839.9	750.0	671.4	608.6
52.5°	532.0	651.6	839.3	1033.5	1090.4	998.5	861.1	761.3	674.7	604.0	552.5
55°	463.2	561.0	707.7	891.5	965.5	898.1	775.2	680.0	609.3	548.5	502.2
57.5°	403.1	479.8	602.0	756.0	839.9	794.3	689.2	610.6	547.8	491.0	454.0
60°	346.9	407.1	506.9	630.4	725.6	695.9	609.3	537.3	485.7	438.1	403.8
62.5°	294.1	343.6	425.6	520.1	605.3	597.4	530.6	473.2	429.5	387.2	359.5
65°	245.2	282.8	349.6	428.2	498.3	504.2	453.3	412.4	372.0	337.7	311.9
67.5°	202.9	228.6	278.9	348.3	401.8	420.3	385.9	352.9	319.8	292.1	269.0
70°	164.5	184.4	218.7	272.3	320.5	340.3	322.5	298.0	270.3	248.5	229.3
72.5°	125.6	144.7	167.9	203.5	243.2	265.0	261.7	245.8	224.7	207.5	189.7
75°	100.4	106.4	123.6	150.0	182.4	200.9	205.5	196.3	178.4	164.5	154.0
77.5°	78.0	81.9	91.2	107.1	129.5	146.0	153.3	152.0	138.8	129.5	119.6
80°	59.5	61.5	65.4	71.4	87.2	103.7	108.4	108.4	99.8	96.5	86.6
82.5°	41.6	43.0	44.9	47.6	52.9	66.7	72.0	73.4	68.7	64.1	56.8
85°	25.8	25.1	26.4	28.4	29.7	33.7	41.6	43.0	41.6	36.3	34.4
87.5°	11.2	11.9	11.9	11.2	11.9	12.6	15.9	19.2	16.5	14.5	13.2
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°	1901.9	1901.9	1901.9	1901.9	1901.9	1901.9	1901.9	1901.9	1901.9	1901.9	1901.9
2.5°	1868.2	1863.5	1854.9	1841.7	1833.8	1819.9	1810.7	1816.0	1817.3	1816.0	1814.6
5°	1824.5	1810.7	1791.5	1773.0	1755.8	1737.3	1726.7	1722.1	1712.9	1707.6	1704.9
7.5°	1775.0	1754.5	1727.4	1697.7	1669.9	1643.5	1631.6	1622.3	1605.2	1595.9	1587.3
10°	1718.2	1680.5	1653.4	1611.1	1585.3	1547.7	1521.9	1522.5	1496.8	1482.2	1471.7
12.5°	1655.4	1613.1	1563.5	1526.5	1488.2	1459.8	1427.4	1411.5	1383.8	1369.9	1336.9
15°	1584.7	1536.4	1488.8	1437.3	1401.0	1354.0	1309.1	1254.3	1210.0	1171.6	1161.1
17.5°	1509.3	1449.9	1402.9	1350.1	1293.2	1208.0	1152.5	1118.8	1092.3	1072.5	1056.7
20°	1431.4	1370.6	1319.7	1228.5	1144.6	1091.0	1052.7	1028.2	1000.5	978.7	966.8
22.5°	1349.4	1285.3	1211.3	1106.9	1046.1	1005.8	972.7	943.7	927.1	911.3	900.7
25°	1272.8	1203.4	1089.0	1019.0	966.1	921.2	897.4	880.2	860.4	837.3	826.7
27.5°	1192.8	1082.4	995.9	945.0	890.8	862.4	841.9	813.5	795.6	787.0	775.2
30°	1100.9	990.6	926.5	869.6	834.0	801.6	776.5	761.9	744.8	726.9	719.6
32.5°	998.5	915.9	855.1	810.2	773.8	747.4	728.9	703.1	691.9	682.6	665.5
35°	917.2	850.5	794.3	756.0	721.6	699.2	676.0	662.1	639.7	630.4	624.5
37.5°	843.2	785.1	742.8	700.5	674.0	647.6	634.4	611.3	602.7	588.1	576.2
40°	782.4	725.6	685.3	652.2	621.8	603.3	585.5	567.7	553.1	547.2	532.0
42.5°	720.3	676.7	636.4	599.4	581.5	561.7	537.9	526.0	510.8	500.2	492.3
45°	664.1	623.2	588.8	559.1	536.6	516.1	501.6	479.8	471.2	452.0	444.1
47.5°	614.6	574.9	541.9	512.8	490.3	478.4	457.3	438.1	426.2	413.0	401.8
50°	561.0	529.3	497.6	472.5	452.7	433.5	411.7	403.1	382.0	376.0	370.1
52.5°	512.1	482.4	454.0	429.5	409.7	391.2	372.7	360.8	348.3	342.3	338.3
55°	467.2	438.1	410.4	388.6	368.7	349.6	337.7	323.8	317.2	312.6	307.3
57.5°	420.9	394.5	372.7	350.2	330.4	314.6	300.0	292.1	285.5	280.2	272.9
60°	377.3	352.2	333.1	312.6	292.1	279.5	269.0	259.0	251.1	241.9	239.2
62.5°	331.1	309.9	292.7	272.9	255.7	244.5	234.6	225.3	215.4	200.9	196.9
65°	289.4	272.3	253.8	237.2	221.4	210.1	195.6	185.0	181.1	179.7	179.1
67.5°	251.1	234.6	218.7	201.6	187.0	174.5	165.9	164.5	161.9	161.2	159.3
70°	212.8	197.6	181.7	165.9	152.0	150.0	147.4	144.7	141.4	140.1	138.8
72.5°	178.4	162.6	146.7	134.8	130.8	128.2	125.6	122.9	120.9	119.6	118.9
75°	142.1	127.5	117.0	112.3	109.0	107.1	103.1	101.1	99.8	97.8	97.1
77.5°	108.4	99.1	93.8	91.2	87.2	85.2	82.6	80.6	78.6	78.6	77.3
80°	78.0	74.0	70.7	66.7	65.4	62.8	62.1	60.1	60.8	58.8	58.8
82.5°	56.2	50.9	48.2	46.9	45.6	43.6	43.0	42.3	42.3	41.0	41.0
85°	31.1	29.7	28.4	27.1	27.1	25.1	25.8	25.1	25.1	23.8	23.1
87.5°	12.6	11.9	10.6	10.6	10.6	9.9	9.9	9.3	9.3	9.3	8.6
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: P242421

CATALOG NUMBER: S122RDRP-S1005D940-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1901.9	1901.9	1901.9	1901.9
2.5°	1807.4	1808.7	1806.7	1808.0
5°	1701.6	1693.7	1692.4	1690.4
7.5°	1576.7	1576.1	1572.1	1567.5
10°	1457.1	1453.8	1453.2	1448.5
12.5°	1317.0	1291.3	1288.6	1275.4
15°	1145.2	1141.2	1128.0	1119.4
17.5°	1049.4	1036.2	1031.6	1029.6
20°	957.5	945.6	943.7	942.3
22.5°	894.1	881.5	875.6	871.0
25°	820.1	815.5	812.8	811.5
27.5°	761.9	750.0	748.7	745.4
30°	713.7	710.4	705.8	701.8
32.5°	656.9	654.2	650.3	648.9
35°	617.9	608.6	604.7	598.7
37.5°	574.9	569.6	563.0	565.7
40°	523.4	520.1	518.7	518.1
42.5°	482.4	471.8	467.9	467.9
45°	440.8	432.2	426.2	426.9
47.5°	395.8	396.5	392.5	393.9
50°	365.4	361.5	358.8	359.5
52.5°	336.4	333.1	331.1	334.4
55°	304.0	300.0	299.4	298.7
57.5°	269.0	267.0	263.7	261.7
60°	230.6	225.3	218.7	218.1
62.5°	195.6	195.6	195.6	195.6
65°	177.8	177.1	177.8	178.4
67.5°	159.3	157.9	156.6	157.3
70°	137.5	136.8	136.1	136.1
72.5°	116.3	116.3	115.6	115.0
75°	96.5	95.2	95.2	95.2
77.5°	77.3	76.7	76.0	75.3
80°	58.2	57.5	56.8	56.8
82.5°	41.0	40.3	40.3	39.6
85°	23.8	24.5	23.8	25.1
87.5°	8.6	7.9	8.6	7.9
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P242421
 CATALOG NUMBER: S122RDRP-S1005D940-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	18.01	19.46	18.37	19.77	20.09	23.91	25.36	24.27	25.67	25.99
	3H	19.12	20.42	19.50	20.75	21.11	25.06	26.36	25.44	26.69	27.05
	4H	19.57	20.79	19.97	21.14	21.52	25.46	26.67	25.86	27.02	27.40
	6H	19.94	21.06	20.35	21.43	21.82	25.72	26.85	26.14	27.21	27.61
	8H	20.06	21.13	20.49	21.52	21.92	25.80	26.86	26.22	27.25	27.65
	12H	20.15	21.17	20.58	21.55	21.98	25.83	26.85	26.26	27.24	27.66
4H	2H	18.72	19.93	19.12	20.28	20.66	23.87	25.09	24.27	25.44	25.82
	3H	19.99	20.99	20.40	21.39	21.80	25.17	26.17	25.58	26.57	26.98
	4H	20.54	21.44	20.97	21.86	22.30	25.66	26.56	26.09	26.98	27.42
	6H	21.01	21.79	21.47	22.24	22.70	26.05	26.83	26.50	27.27	27.74
	8H	21.17	21.90	21.63	22.35	22.82	26.16	26.89	26.62	27.34	27.81
	12H	21.29	21.94	21.77	22.42	22.89	26.24	26.89	26.72	27.37	27.84
8H	4H	20.88	21.61	21.35	22.06	22.53	25.64	26.38	26.11	26.82	27.29
	6H	21.45	22.05	21.95	22.55	23.03	26.07	26.68	26.57	27.17	27.65
	8H	21.68	22.22	22.19	22.73	23.22	26.22	26.76	26.74	27.27	27.76
	12H	21.86	22.34	22.37	22.83	23.40	26.34	26.82	26.86	27.31	27.88
12H	4H	20.92	21.57	21.41	22.05	22.53	25.62	26.27	26.11	26.75	27.23
	6H	21.51	22.05	22.03	22.57	23.06	26.05	26.59	26.56	27.10	27.59
	8H	21.79	22.27	22.30	22.76	23.33	26.23	26.71	26.74	27.20	27.77