

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: P242652

Luminaire Tested: S124DRP-S1195D930-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242652
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-21)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DRP-S1195D930-X4F0-XX-UDD-A-W
Description: DEFINE 4 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

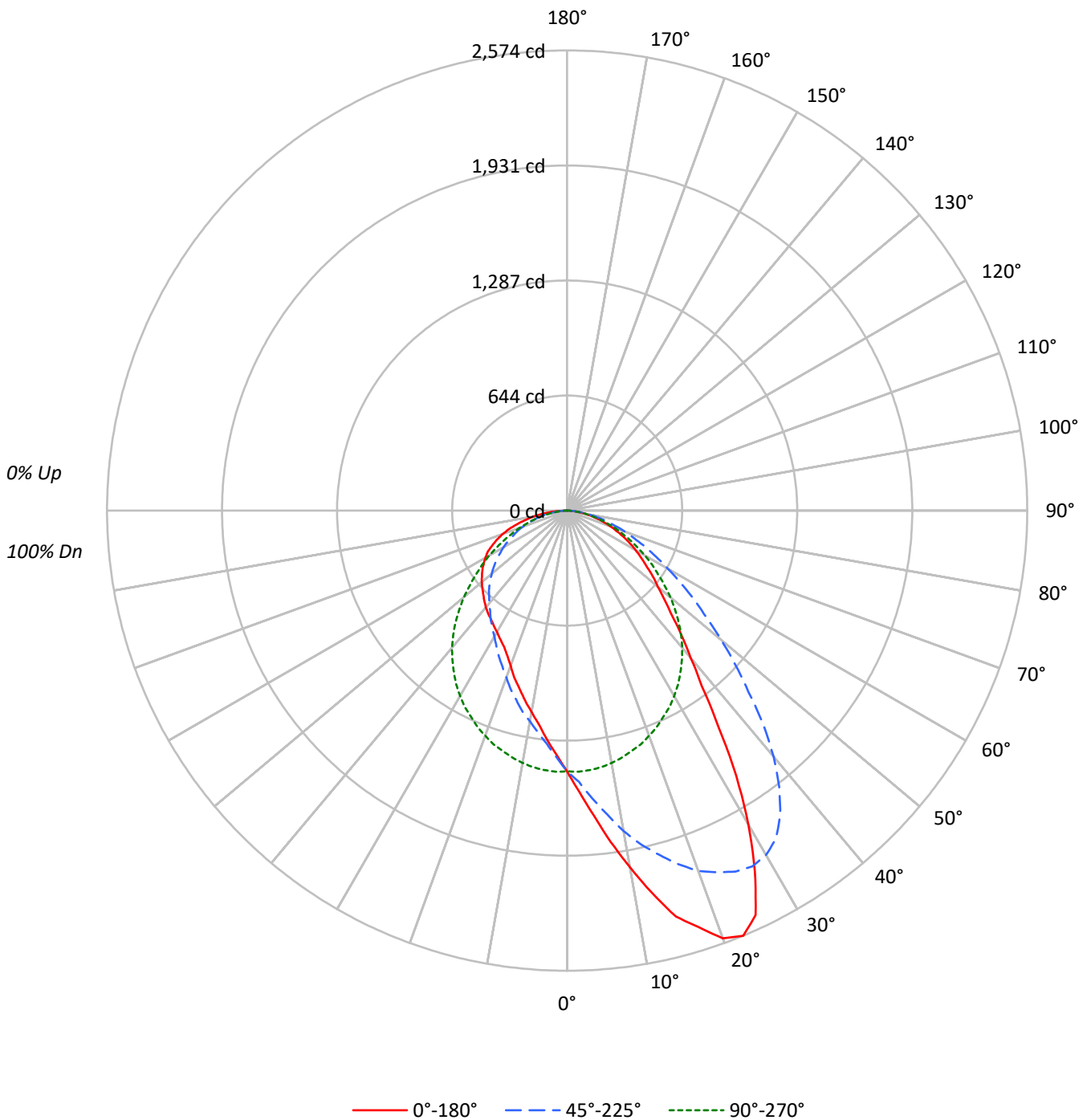
Lumens per Lamp: N/A
Luminaire Lumens: 4024.5 lumens
Efficiency: N/A
Efficacy: 97.9 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.22 / 1.41
Luminous Opening: Rectangular (W 3.88' x L: 0.31' x H: 0')
CIE Type: Direct

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	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85					85			
2	100	92	86	80	98	90	84	79	87	82	78	84	79	76	81	77	74	72					72			
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	62					62			
4	84	73	64	58	82	72	64	58	69	62	57	67	61	56	65	60	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	50	60	54	49	58	53	49	46					46			
6	72	59	51	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41					41			
7	67	54	45	39	65	53	45	39	52	44	39	50	44	39	49	43	38	36					36			
8	62	49	41	35	61	49	41	35	47	40	35	46	40	35	45	39	35	33					33			
9	58	45	37	32	57	45	37	32	44	37	32	43	36	32	42	36	31	30					30			
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27					27			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	12964	12964	12964	12964	12964
5°	15267	14421	12998	11682	11472
10°	18280	16431	12941	10809	10328
15°	21628	18353	12810	10097	9485
20°	24084	20288	12677	9396	8733
25°	24472	21848	12479	8847	8213
30°	20824	22833	12291	8353	8049
35°	16010	22546	11984	8083	8051
40°	12479	20836	11623	7859	8203
45°	10405	18030	11081	7762	8339
50°	9157	15549	10419	7620	8622
55°	8389	13380	9625	7481	8970
60°	7863	11579	8916	7292	9387
65°	7319	10115	8121	7052	9734
70°	6690	8935	7332	6861	9954
75°	5976	7697	6453	6412	9836
80°	5011	6245	5288	5846	9526
85°	3702	4742	3825	5426	9118

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 55°
 Vertical Angle: 45°
 Luminance: 19906 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.9	3.5
10°-20°	438.1	10.9
20°-30°	696.0	17.3
30°-40°	773.4	19.2
40°-50°	703.3	17.5
50°-60°	574.7	14.3
60°-70°	410.3	10.2
70°-80°	225.7	5.6
80°-90°	61.0	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°	1276.1	31.7
0°-40°	2049.4	50.9
0°-60°	3327.5	82.7
0°-90°	4024.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4024.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1458	1458	1458	1458	1458	
5°	1711	1616	1457	1309	1286	173
15°	2350	1994	1392	1097	1031	664
25°	2495	2228	1272	902	837	1107
35°	1475	2078	1104	745	742	934
45°	828	1434	882	618	663	650
55°	541	863	621	483	579	489
65°	348	481	386	335	463	344
75°	174	224	188	187	286	185
85°	36	46	38	53	89	45
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°	1458.5	1458.5	1458.5	1458.5	1458.5	1458.5	1458.5	1458.5	1458.5	1458.5	1458.5
2.5°	1575.7	1575.1	1569.0	1567.8	1563.6	1558.2	1557.0	1547.3	1528.0	1518.9	1516.5
5°	1711.0	1723.1	1707.4	1704.4	1702.6	1682.6	1672.3	1660.3	1632.5	1616.2	1603.5
7.5°	1869.3	1869.9	1863.3	1856.6	1845.1	1828.2	1805.3	1778.7	1746.7	1714.0	1691.1
10°	2025.2	2030.0	2022.2	2021.0	1990.1	1970.8	1932.1	1899.5	1862.1	1820.4	1782.3
12.5°	2189.5	2179.9	2176.8	2144.8	2145.4	2106.1	2059.6	2025.8	1963.0	1913.4	1859.6
15°	2350.2	2336.9	2328.5	2292.8	2275.3	2226.4	2178.6	2141.8	2066.3	1994.4	1940.0
17.5°	2443.3	2459.6	2437.8	2423.3	2375.6	2343.6	2295.9	2220.3	2164.1	2074.7	2012.5
20°	2546.0	2547.2	2536.3	2521.2	2485.6	2442.1	2388.9	2304.3	2233.6	2144.8	2050.6
22.5°	2573.8	2573.8	2570.8	2556.9	2532.1	2498.9	2445.1	2378.0	2288.6	2190.1	2095.9
25°	2495.2	2492.8	2498.3	2514.0	2503.7	2492.8	2462.0	2409.4	2329.7	2227.6	2126.1
27.5°	2272.9	2288.6	2321.2	2359.9	2387.7	2412.5	2410.6	2388.3	2331.5	2243.3	2135.1
30°	2028.8	2049.4	2072.3	2111.0	2185.9	2228.8	2275.9	2311.6	2291.6	2224.6	2125.5
32.5°	1760.6	1761.8	1798.6	1843.9	1911.0	2003.4	2085.0	2166.6	2201.6	2174.4	2095.9
35°	1475.4	1483.8	1520.7	1564.2	1648.2	1749.1	1861.5	1961.7	2044.5	2077.7	2035.5
37.5°	1236.1	1262.7	1290.5	1340.1	1416.8	1508.0	1628.8	1753.9	1875.4	1949.1	1956.9
40°	1075.4	1090.5	1109.3	1144.9	1207.7	1297.2	1397.4	1546.1	1677.2	1795.6	1834.3
42.5°	948.6	955.8	965.5	996.9	1041.0	1129.8	1219.2	1345.5	1477.2	1624.6	1695.9
45°	827.7	836.8	856.1	874.8	911.1	972.7	1057.9	1165.4	1297.8	1434.3	1553.9
47.5°	737.1	743.1	755.2	775.8	808.4	850.1	922.6	1013.8	1143.1	1275.4	1403.5
50°	662.2	667.0	676.1	694.2	717.8	754.0	810.8	894.8	990.8	1124.4	1249.4
52.5°	603.0	604.2	610.2	621.1	638.6	667.6	711.7	777.6	865.2	980.6	1105.0
55°	541.3	543.8	549.8	558.9	575.2	594.5	630.2	682.1	760.0	863.4	971.5
57.5°	490.6	493.0	497.8	501.5	516.0	532.3	561.3	598.7	659.8	751.6	850.1
60°	442.3	441.0	447.1	450.1	459.2	472.5	493.6	529.3	580.6	651.3	740.1
62.5°	395.1	393.3	398.1	402.4	406.6	417.5	433.8	459.8	499.0	561.3	635.0
65°	348.0	345.6	348.6	353.4	358.3	364.3	377.0	401.8	435.0	480.9	539.5
67.5°	299.7	302.7	302.7	305.7	308.7	317.2	326.3	345.6	369.1	406.6	458.6
70°	257.4	258.0	260.4	260.4	262.2	269.5	276.7	287.0	309.9	343.8	384.3
72.5°	215.1	218.1	216.3	218.7	219.9	224.1	229.0	238.6	257.4	280.3	313.0
75°	174.0	175.8	175.8	176.4	178.2	180.0	184.3	191.5	205.4	224.1	247.7
77.5°	134.1	134.1	135.3	137.8	137.8	140.8	144.4	149.8	157.7	171.6	186.7
80°	97.9	99.1	98.5	99.7	99.7	102.1	103.3	110.6	113.6	122.0	133.5
82.5°	65.3	66.5	66.5	68.3	69.5	69.5	71.3	73.1	76.1	83.4	86.4
85°	36.3	37.5	36.3	37.5	39.3	39.9	41.7	42.3	44.7	46.5	50.8
87.5°	13.3	15.1	15.1	15.7	16.9	17.5	18.1	17.5	19.9	20.5	23.0
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1458.5	1458.5	1458.5	1458.5	1458.5	1458.5	1458.5	1458.5	1458.5	1458.5	1458.5
2.5°	1517.1	1508.6	1502.6	1497.7	1484.5	1476.6	1470.6	1462.1	1452.4	1442.2	1429.5
5°	1590.8	1570.2	1555.1	1532.2	1510.4	1492.3	1473.6	1456.7	1436.1	1413.8	1397.4
7.5°	1666.3	1637.9	1599.8	1570.2	1534.6	1503.8	1476.6	1448.2	1418.0	1389.0	1361.8
10°	1737.6	1698.3	1654.8	1603.5	1555.1	1512.2	1472.4	1433.7	1396.2	1358.8	1326.8
12.5°	1814.3	1763.0	1693.5	1631.3	1575.7	1514.7	1464.5	1415.0	1367.8	1328.0	1289.3
15°	1881.4	1810.7	1736.4	1656.0	1584.7	1517.7	1451.8	1392.0	1341.3	1289.3	1253.1
17.5°	1923.7	1836.1	1756.3	1672.3	1590.2	1506.2	1437.9	1370.9	1308.0	1257.3	1212.0
20°	1965.4	1878.4	1772.6	1688.7	1586.0	1499.0	1416.8	1340.1	1273.6	1218.6	1171.5
22.5°	2001.6	1897.7	1792.0	1674.8	1572.7	1479.0	1387.2	1309.8	1241.6	1183.0	1138.3
25°	2010.1	1894.7	1779.9	1669.9	1553.9	1444.6	1363.0	1272.4	1199.9	1138.9	1090.5
27.5°	2013.1	1891.1	1763.6	1644.0	1524.3	1424.6	1318.3	1239.2	1164.2	1099.6	1053.7
30°	2006.5	1877.8	1738.2	1605.9	1485.7	1375.1	1285.7	1197.5	1120.7	1056.7	1008.4
32.5°	1985.3	1850.0	1705.6	1563.6	1437.9	1330.4	1237.3	1154.6	1080.3	1017.4	966.1
35°	1940.6	1808.3	1655.4	1509.8	1382.3	1273.0	1189.6	1104.4	1029.5	969.7	920.8
37.5°	1880.8	1757.5	1602.3	1450.6	1328.0	1216.8	1132.8	1054.3	986.6	925.0	874.2
40°	1797.4	1692.3	1536.4	1389.6	1254.3	1149.7	1072.4	1001.7	934.7	877.3	829.5
42.5°	1701.3	1613.1	1472.4	1314.7	1185.4	1080.3	1005.3	943.7	881.5	829.5	781.8
45°	1583.5	1523.1	1387.8	1244.0	1108.1	1009.0	937.1	881.5	828.3	776.4	736.5
47.5°	1452.4	1418.6	1300.8	1163.0	1032.5	933.4	871.2	818.0	769.7	724.4	688.8
50°	1320.1	1305.6	1207.1	1075.4	952.2	860.3	797.5	753.4	713.5	674.9	641.6
52.5°	1189.6	1192.6	1106.2	988.4	876.7	789.0	726.8	686.3	653.1	623.5	594.5
55°	1056.1	1073.0	1003.5	896.0	793.9	714.1	657.9	621.1	596.9	570.9	548.6
57.5°	933.4	961.8	901.4	802.9	716.5	640.4	590.9	562.5	535.9	519.0	501.5
60°	813.8	840.4	795.7	715.9	635.6	572.8	526.2	501.5	479.1	468.2	456.8
62.5°	707.5	730.4	700.2	627.7	560.7	500.9	463.4	439.8	426.5	414.5	407.8
65°	607.2	627.1	598.7	545.0	485.2	436.8	404.8	386.1	371.6	366.7	358.3
67.5°	508.1	526.2	511.1	464.0	413.3	375.2	349.8	329.9	321.4	316.6	311.1
70°	421.7	439.8	423.5	383.6	346.8	316.0	292.4	282.1	273.1	271.3	262.8
72.5°	348.6	359.5	343.2	314.2	284.0	259.2	242.3	231.4	227.8	224.1	220.5
75°	272.5	283.4	272.5	248.3	226.0	207.8	192.1	187.9	182.5	180.6	177.6
77.5°	204.2	214.5	206.0	189.7	172.2	157.1	148.0	142.0	141.4	137.8	139.0
80°	147.4	153.5	145.6	135.3	122.0	112.4	106.3	103.3	99.7	98.5	100.9
82.5°	95.5	97.3	94.3	88.2	79.1	73.7	70.1	66.5	66.5	67.1	66.5
85°	55.0	54.4	53.8	47.7	44.7	40.5	38.1	37.5	36.9	38.1	39.3
87.5°	23.0	23.6	23.0	20.5	18.7	16.9	16.3	15.7	16.3	16.9	17.5
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°	1458.5	1458.5	1458.5	1458.5	1458.5	1458.5	1458.5	1458.5	1458.5	1458.5	1458.5
2.5°	1423.4	1418.0	1410.1	1399.3	1390.2	1380.5	1378.1	1374.5	1381.7	1375.7	1373.9
5°	1383.6	1370.9	1354.6	1335.8	1324.9	1309.2	1306.2	1300.2	1294.1	1293.5	1287.5
7.5°	1341.9	1324.3	1303.8	1284.5	1267.6	1250.6	1239.8	1238.6	1228.9	1224.1	1218.0
10°	1302.0	1279.0	1254.3	1236.1	1215.6	1197.5	1184.8	1177.5	1171.5	1164.8	1158.8
12.5°	1254.9	1230.1	1210.8	1190.8	1165.4	1152.8	1129.8	1115.9	1115.9	1117.7	1099.6
15°	1220.4	1196.3	1164.8	1137.1	1123.8	1097.2	1085.7	1071.2	1062.1	1053.1	1045.8
17.5°	1178.1	1148.5	1124.4	1092.9	1068.2	1048.2	1032.5	1024.7	1010.2	996.9	987.8
20°	1138.9	1106.8	1080.9	1047.0	1019.2	993.3	980.6	968.5	958.2	947.3	937.1
22.5°	1099.0	1065.2	1031.9	999.3	973.9	946.1	934.0	916.5	906.9	902.0	891.8
25°	1056.7	1020.4	984.2	952.8	926.2	902.0	885.7	873.0	862.2	857.3	850.7
27.5°	1010.8	975.1	940.7	904.4	873.6	856.1	842.8	832.5	825.9	818.7	815.6
30°	967.3	929.8	892.4	859.1	831.3	813.8	801.7	795.1	790.3	787.2	784.2
32.5°	923.2	886.3	846.4	816.8	792.7	777.6	769.1	762.5	760.7	760.0	759.4
35°	875.4	838.0	801.7	774.5	751.0	744.9	737.1	733.5	732.3	736.5	738.3
37.5°	829.5	794.5	760.7	733.5	717.8	708.1	705.1	704.5	708.7	712.3	716.5
40°	785.4	751.6	720.2	697.2	682.7	677.3	676.1	679.1	683.9	688.2	693.0
42.5°	742.5	709.3	681.5	660.4	651.3	646.5	647.7	650.7	657.9	663.4	671.2
45°	697.8	670.0	642.2	624.7	616.3	617.5	617.5	622.9	629.5	637.4	645.3
47.5°	656.1	627.7	604.2	589.1	584.8	583.0	586.0	593.3	602.4	611.4	622.3
50°	613.8	587.3	567.3	554.0	549.2	551.0	555.8	562.5	574.0	586.0	597.5
52.5°	570.9	547.4	529.3	517.2	514.2	517.8	522.6	534.1	543.8	557.0	571.5
55°	526.2	505.7	491.2	482.1	480.9	482.7	488.2	499.7	514.2	530.5	543.8
57.5°	482.1	464.6	450.7	444.1	444.7	445.9	454.3	468.2	482.7	500.3	517.2
60°	437.4	421.7	410.8	406.0	406.6	410.2	421.1	433.8	453.1	470.0	488.2
62.5°	395.1	381.8	371.6	367.3	366.1	375.2	385.5	398.8	418.1	437.4	457.4
65°	349.2	338.3	329.9	327.5	329.3	335.3	348.6	366.1	382.4	402.4	422.9
67.5°	304.5	295.4	289.4	290.6	292.4	300.9	312.4	327.5	345.6	366.1	387.3
70°	262.2	253.8	248.9	249.5	253.1	264.0	273.7	288.8	308.7	329.9	346.8
72.5°	218.7	213.9	209.6	212.7	216.3	222.9	235.6	250.7	267.6	287.0	305.1
75°	174.6	174.6	172.2	174.0	179.4	186.7	195.8	211.5	229.0	244.7	259.2
77.5°	137.1	135.3	136.5	138.4	142.0	151.0	161.3	172.8	186.7	203.0	215.1
80°	99.1	99.7	102.7	106.3	107.5	114.2	125.1	135.3	145.6	158.9	170.4
82.5°	68.3	68.9	70.1	74.9	76.1	83.4	89.4	99.7	108.8	116.6	125.7
85°	40.5	40.5	43.5	45.3	48.3	53.2	57.4	63.4	71.9	77.9	87.0
87.5°	19.3	19.3	21.8	23.0	24.8	27.8	29.0	35.6	38.1	41.1	46.5
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: P242652

CATALOG NUMBER: S124DRP-S1195D930-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1458.5	1458.5	1458.5	1458.5
2.5°	1372.7	1371.5	1367.2	1366.6
5°	1283.9	1280.8	1279.0	1285.7
7.5°	1216.8	1214.4	1208.9	1207.1
10°	1152.8	1150.3	1145.5	1144.3
12.5°	1091.1	1085.7	1085.7	1087.5
15°	1038.0	1035.6	1028.9	1030.7
17.5°	983.6	981.2	972.1	981.2
20°	932.8	928.0	923.8	923.2
22.5°	884.5	880.3	880.9	876.0
25°	845.8	841.6	840.4	837.4
27.5°	814.4	812.0	809.6	810.8
30°	786.0	785.4	784.2	784.2
32.5°	762.5	762.5	763.7	763.7
35°	740.7	742.5	743.7	741.9
37.5°	721.4	722.6	724.4	726.2
40°	698.4	702.7	703.9	706.9
42.5°	676.7	681.5	685.1	685.1
45°	654.3	659.2	663.4	663.4
47.5°	631.4	638.0	642.2	642.8
50°	607.8	616.3	620.5	623.5
52.5°	584.8	593.3	599.3	600.5
55°	557.7	569.7	576.4	578.8
57.5°	533.5	544.4	551.6	553.4
60°	504.5	516.6	526.2	528.0
62.5°	474.9	487.6	496.0	501.5
65°	439.8	452.5	461.0	462.8
67.5°	403.0	416.3	421.7	425.3
70°	363.7	374.0	380.0	383.0
72.5°	319.0	329.9	337.1	337.1
75°	273.1	282.8	286.4	286.4
77.5°	225.4	230.8	235.6	236.8
80°	179.4	182.5	186.1	186.1
82.5°	132.3	134.7	138.4	137.8
85°	85.8	91.2	90.6	89.4
87.5°	48.3	48.9	50.8	52.0
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P242652
 CATALOG NUMBER: S124DRP-S1195D930-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	18.87	20.43	19.23	20.74	21.06	19.78	21.34	20.14	21.66	21.97
	3H	20.35	21.76	20.73	22.09	22.45	21.15	22.55	21.52	22.88	23.24
	4H	20.89	22.21	21.29	22.56	22.94	21.62	22.94	22.02	23.29	23.67
	6H	21.25	22.47	21.66	22.84	23.23	21.93	23.15	22.34	23.51	23.91
	8H	21.35	22.52	21.78	22.91	23.31	22.01	23.17	22.43	23.56	23.96
	12H	21.41	22.52	21.84	22.90	23.33	22.05	23.16	22.48	23.55	23.97
4H	2H	20.03	21.35	20.43	21.70	22.08	20.47	21.79	20.86	22.14	22.51
	3H	21.56	22.66	21.97	23.06	23.46	22.17	23.28	22.58	23.67	24.07
	4H	22.15	23.14	22.58	23.56	23.99	22.76	23.76	23.19	24.17	24.61
	6H	22.57	23.44	23.03	23.88	24.34	23.16	24.03	23.62	24.47	24.93
	8H	22.70	23.51	23.16	23.95	24.42	23.26	24.08	23.73	24.52	24.99
	12H	22.77	23.50	23.26	23.98	24.45	23.33	24.06	23.81	24.53	25.00
8H	4H	22.60	23.41	23.06	23.86	24.32	23.08	23.89	23.54	24.33	24.80
	6H	23.11	23.78	23.60	24.27	24.75	23.60	24.28	24.10	24.77	25.24
	8H	23.28	23.88	23.79	24.39	24.88	23.77	24.37	24.28	24.88	25.37
	12H	23.40	23.94	23.91	24.43	24.99	23.88	24.41	24.39	24.91	25.47
12H	4H	22.65	23.38	23.13	23.85	24.32	23.11	23.84	23.59	24.31	24.78
	6H	23.18	23.79	23.69	24.29	24.78	23.66	24.27	24.17	24.77	25.26
	8H	23.40	23.94	23.91	24.43	24.99	23.88	24.42	24.39	24.91	25.47