

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P242814

Luminaire Tested: **S125DR-S1270D835-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242814
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-22)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DR-S1270D835-X4F0-XX-UDD-A-W
Description: DEFINE 5 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4926.7 lumens
Efficiency: N/A
Efficacy: 119.9 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.23 / 1.53
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

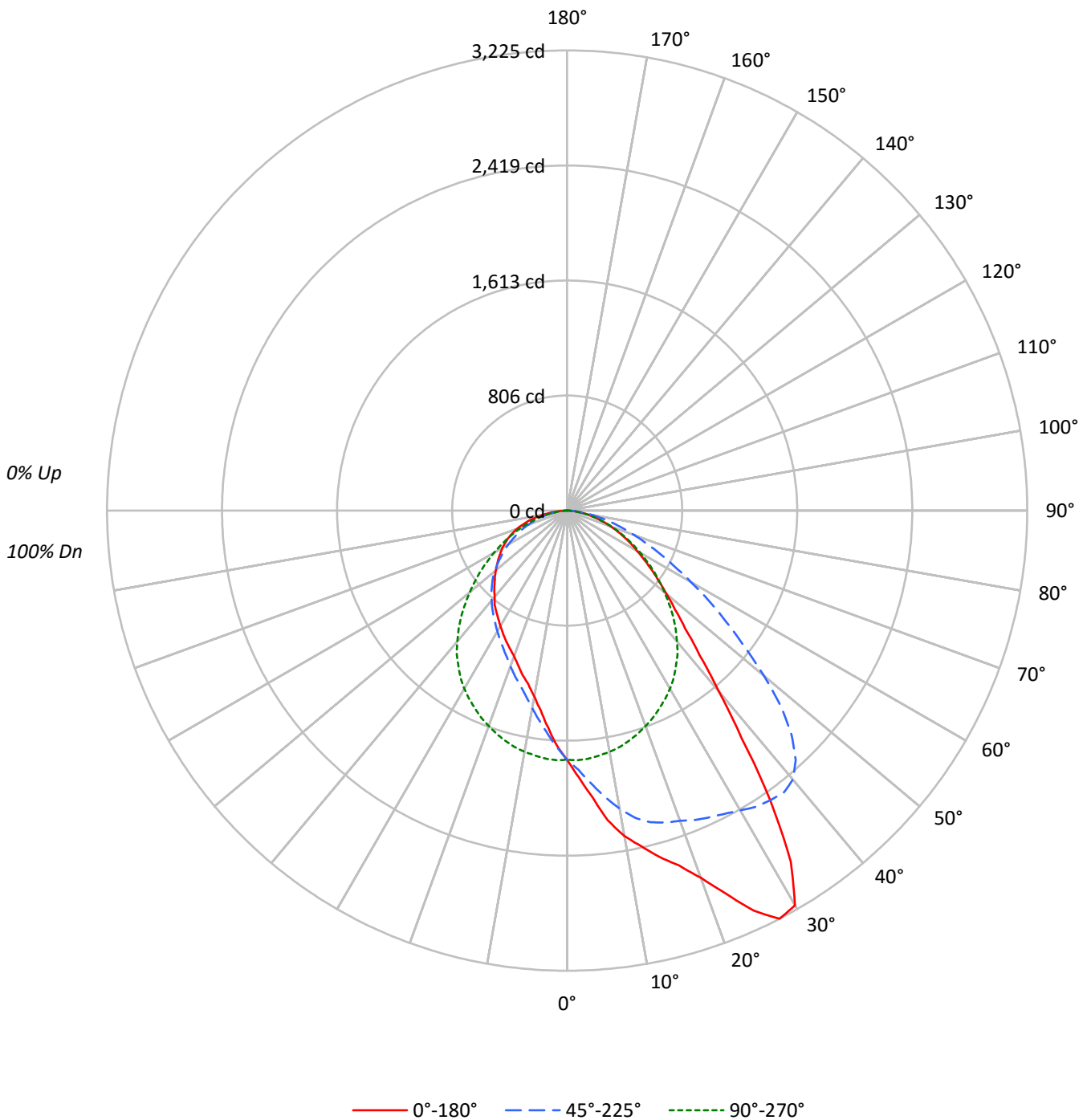
Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	109	105	101	97	107	103	99	96	99	96	93		95	92	90		91	89	87	85
2	100	92	86	80	98	90	84	79	87	82	78		84	80	76		81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66		74	69	65		72	67	64	61
4	84	73	64	58	82	71	63	57	69	62	57		67	61	56		64	59	55	53
5	78	65	56	50	76	64	56	50	62	55	49		60	54	49		58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43		54	48	43		53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39		50	43	38		48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34		46	39	34		44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31		42	36	31		41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28		39	33	28		38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	12408	12408	12408
5°	14369	12450	10902
10°	16717	12386	9551
15°	18506	12295	8811
20°	20715	12151	8216
25°	24267	11988	7926
30°	26210	11829	7674
35°	21551	11528	7509
40°	15318	11110	7329
45°	11768	10547	7225
50°	10045	9849	7210
55°	8943	9163	7272
60°	8068	8417	7457
65°	7452	7664	7652
70°	6774	6882	7762
75°	5984	6063	7692
80°	5034	4944	7036
85°	3988	3564	5684



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.0	3.4
10°-20°	500.5	10.2
20°-30°	813.0	16.5
30°-40°	993.5	20.2
40°-50°	901.3	18.3
50°-60°	717.9	14.6
60°-70°	500.0	10.1
70°-80°	266.3	5.4
80°-90°	66.1	1.3
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°	1481.5	30.1
0°-40°	2475.0	50.2
0°-60°	4094.2	83.1
0°-90°	4926.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4926.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1746	1746	1746	1746	1746	
5°	2014	1918	1745	1569	1528	202
15°	2515	2261	1671	1267	1198	719
25°	3094	2370	1529	1062	1011	1418
35°	2484	2479	1329	900	866	1524
45°	1171	2224	1049	745	719	932
55°	722	1363	740	568	587	649
65°	443	722	456	383	455	440
75°	218	322	221	202	280	235
85°	49	64	44	47	70	57
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°	1745.8	1745.8	1745.8	1745.8	1745.8	1745.8	1745.8	1745.8	1745.8	1745.8	1745.8
2.5°	1871.8	1868.8	1865.8	1859.9	1864.4	1851.8	1845.8	1835.5	1822.9	1818.4	1813.2
5°	2014.0	2017.8	2021.5	2005.9	2007.4	1997.0	1973.3	1954.0	1938.5	1918.5	1904.4
7.5°	2190.4	2179.3	2180.0	2170.4	2153.4	2139.3	2116.3	2084.4	2055.5	2022.9	1994.8
10°	2316.4	2317.1	2310.5	2298.6	2280.1	2266.7	2234.1	2203.0	2165.2	2120.8	2088.9
12.5°	2411.2	2414.9	2406.0	2389.0	2382.3	2348.2	2324.5	2286.0	2239.3	2206.0	2153.4
15°	2515.0	2506.8	2500.9	2480.9	2465.3	2434.2	2393.4	2354.9	2306.0	2260.8	2215.6
17.5°	2606.9	2613.5	2603.9	2589.1	2543.1	2506.8	2456.4	2407.5	2349.0	2292.7	2240.1
20°	2738.8	2744.7	2727.6	2695.8	2638.0	2601.7	2529.8	2461.6	2391.2	2313.4	2254.1
22.5°	2903.3	2895.8	2871.4	2818.8	2770.6	2695.8	2616.5	2529.8	2437.2	2346.8	2263.0
25°	3094.4	3063.3	3049.2	2989.2	2923.3	2824.7	2718.0	2596.5	2486.8	2370.5	2269.7
27.5°	3224.8	3212.3	3192.2	3143.3	3067.8	2955.9	2829.9	2684.7	2537.2	2394.9	2268.2
30°	3193.7	3195.2	3196.7	3183.4	3138.9	3059.6	2934.4	2775.1	2591.3	2426.0	2273.4
32.5°	2918.1	2951.4	2983.3	3024.8	3051.5	3052.2	2985.5	2845.5	2655.0	2461.6	2270.4
35°	2483.8	2492.0	2575.7	2658.7	2771.4	2858.8	2917.3	2853.6	2694.3	2478.7	2268.2
37.5°	2008.1	2048.9	2111.9	2205.2	2374.2	2512.0	2692.8	2755.1	2680.2	2492.7	2267.5
40°	1651.0	1688.0	1725.8	1821.4	1958.5	2134.8	2347.5	2529.0	2571.3	2461.6	2245.2
42.5°	1375.3	1402.7	1445.7	1511.6	1620.6	1771.7	1972.6	2223.8	2395.7	2371.2	2198.6
45°	1170.8	1189.3	1221.9	1279.0	1362.0	1484.2	1663.6	1922.9	2148.9	2223.8	2119.3
47.5°	1025.5	1026.3	1053.0	1093.7	1156.7	1269.3	1403.5	1616.9	1860.7	2033.3	2008.9
50°	908.5	904.8	924.8	958.9	1006.3	1075.2	1201.9	1364.2	1596.1	1798.4	1854.7
52.5°	807.7	809.2	819.6	842.5	880.3	936.6	1023.3	1165.6	1355.3	1564.3	1682.8
55°	721.7	718.8	732.9	749.9	778.8	817.3	885.5	997.4	1158.2	1362.7	1500.5
57.5°	638.7	646.9	652.8	664.7	689.9	716.6	777.3	863.3	995.9	1177.5	1323.4
60°	567.6	575.8	580.2	592.1	611.3	633.6	678.0	744.7	852.2	1003.3	1147.8
62.5°	503.9	509.8	510.6	520.9	535.7	557.2	589.8	643.2	722.5	849.9	990.7
65°	443.1	443.1	446.1	457.2	464.6	483.9	510.6	551.3	619.5	722.5	843.3
67.5°	383.8	387.5	386.8	392.0	398.7	415.0	435.0	469.1	523.1	601.0	701.0
70°	326.0	329.0	328.3	332.0	339.4	349.0	364.6	396.4	432.7	497.2	580.2
72.5°	274.2	274.9	272.7	277.9	281.6	289.7	307.5	320.9	354.2	406.1	470.5
75°	217.9	219.3	220.8	223.8	228.2	232.7	241.6	258.6	280.8	321.6	365.3
77.5°	173.4	169.7	174.1	173.4	175.6	179.3	187.5	197.1	216.4	243.8	280.1
80°	123.0	123.7	123.7	124.5	128.2	130.4	137.1	143.8	157.8	177.1	200.8
82.5°	81.5	83.7	82.3	83.7	86.7	88.2	91.1	96.3	103.0	117.1	132.6
85°	48.9	45.2	46.7	48.2	48.2	48.9	51.9	54.1	58.5	64.5	71.1
87.5°	17.8	19.3	20.0	20.0	20.7	20.7	23.7	23.7	25.9	28.2	31.1
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°	1745.8	1745.8	1745.8	1745.8	1745.8	1745.8	1745.8	1745.8	1745.8	1745.8	1745.8
2.5°	1808.8	1803.6	1797.7	1787.3	1774.7	1768.0	1757.7	1751.0	1737.7	1726.5	1714.7
5°	1887.3	1868.1	1850.3	1827.3	1802.1	1785.8	1766.6	1745.1	1722.8	1699.9	1674.7
7.5°	1965.9	1934.0	1899.2	1862.9	1827.3	1794.0	1762.8	1731.0	1702.1	1665.8	1635.4
10°	2045.2	2002.2	1956.3	1902.2	1849.5	1803.6	1756.9	1716.2	1674.7	1630.2	1590.9
12.5°	2124.5	2063.7	1994.0	1933.3	1867.3	1809.5	1752.5	1697.6	1642.8	1592.4	1545.0
15°	2153.4	2103.0	2042.9	1958.5	1887.3	1811.0	1738.4	1671.0	1608.0	1553.1	1495.3
17.5°	2181.5	2117.0	2053.3	1971.8	1879.2	1796.9	1714.7	1641.3	1571.7	1502.8	1450.1
20°	2188.2	2121.5	2054.1	1974.8	1879.2	1781.4	1699.1	1606.5	1530.2	1458.3	1390.1
22.5°	2186.0	2108.2	2033.3	1951.1	1858.4	1770.3	1666.5	1571.7	1487.2	1416.8	1344.9
25°	2169.7	2088.9	1997.0	1914.8	1822.9	1727.3	1626.5	1528.7	1444.2	1363.4	1293.1
27.5°	2160.0	2057.8	1957.0	1862.1	1774.0	1685.8	1588.0	1487.2	1394.6	1312.3	1247.1
30°	2138.5	2023.7	1906.6	1806.6	1715.4	1630.2	1539.1	1441.3	1343.4	1263.4	1192.3
32.5°	2119.3	1980.7	1855.5	1744.3	1646.5	1564.3	1482.0	1390.1	1294.5	1213.0	1141.9
35°	2093.3	1938.5	1796.9	1673.9	1570.9	1485.7	1415.3	1328.6	1240.4	1161.9	1093.7
37.5°	2063.0	1883.6	1733.9	1605.8	1493.9	1404.9	1338.3	1270.8	1182.6	1105.6	1044.8
40°	2025.9	1824.4	1663.6	1531.7	1414.6	1321.2	1260.4	1197.5	1127.1	1056.7	991.5
42.5°	1979.2	1771.0	1592.4	1447.9	1332.3	1241.9	1177.5	1126.3	1066.3	1001.8	942.6
45°	1919.9	1704.3	1514.6	1362.0	1244.9	1155.2	1089.3	1049.3	1002.6	940.3	889.2
47.5°	1841.4	1628.7	1433.1	1275.3	1154.5	1071.5	1008.5	969.2	935.1	886.2	838.1
50°	1729.5	1542.0	1343.4	1187.1	1066.3	982.6	925.5	890.7	862.5	827.0	787.7
52.5°	1604.3	1433.1	1255.3	1101.1	981.8	899.6	844.0	814.4	792.1	769.2	730.6
55°	1470.2	1322.0	1153.0	1006.3	895.9	815.1	766.2	739.5	720.3	701.0	677.3
57.5°	1325.7	1205.6	1050.7	913.7	811.4	735.8	689.9	662.5	646.9	636.5	621.7
60°	1171.5	1072.2	943.3	821.0	721.7	656.5	612.1	592.1	579.5	571.3	560.9
62.5°	1028.5	951.4	834.4	725.4	641.7	580.9	542.4	523.1	511.3	508.3	500.2
65°	888.5	825.5	726.9	634.3	560.2	507.6	474.2	455.7	448.3	443.9	444.6
67.5°	747.7	706.9	624.7	543.2	482.4	435.7	408.3	394.2	390.5	383.8	383.8
70°	621.0	592.1	525.4	456.5	403.8	369.8	346.0	331.2	327.5	324.6	323.8
72.5°	509.1	484.6	429.0	377.2	331.2	302.3	283.8	276.4	269.7	268.2	268.2
75°	399.4	385.3	339.4	295.7	263.1	242.3	229.0	220.8	216.4	215.6	216.4
77.5°	301.6	288.3	256.4	223.8	202.3	186.0	173.4	171.2	165.2	166.0	164.5
80°	213.4	205.3	186.7	162.3	145.2	131.9	126.0	120.8	119.3	117.1	119.3
82.5°	140.0	131.2	120.0	106.7	93.4	86.7	80.8	80.0	79.3	78.5	78.5
85°	76.3	77.1	69.7	57.8	51.9	47.4	43.7	43.7	43.0	42.2	43.0
87.5°	32.6	31.1	28.2	25.9	22.2	20.0	19.3	20.0	17.8	17.0	17.8
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°	1745.8	1745.8	1745.8	1745.8	1745.8	1745.8	1745.8	1745.8	1745.8	1745.8	1745.8
2.5°	1708.0	1699.9	1693.2	1678.4	1670.2	1659.1	1650.2	1659.8	1649.5	1653.9	1647.3
5°	1662.1	1641.3	1626.5	1605.0	1586.5	1569.4	1556.8	1554.6	1548.7	1545.7	1536.8
7.5°	1607.2	1583.5	1559.1	1532.4	1510.2	1486.5	1472.4	1459.0	1450.9	1440.5	1432.4
10°	1559.8	1525.0	1495.3	1461.3	1431.6	1405.7	1384.9	1374.6	1364.9	1350.9	1345.7
12.5°	1501.3	1465.0	1427.2	1390.1	1362.0	1332.3	1315.3	1298.2	1292.3	1276.0	1275.3
15°	1456.8	1402.7	1367.2	1330.1	1290.8	1267.1	1252.3	1235.3	1227.8	1216.7	1208.6
17.5°	1402.0	1353.1	1308.6	1270.8	1235.3	1216.0	1196.7	1184.9	1172.3	1164.1	1150.8
20°	1341.2	1295.3	1250.8	1210.1	1184.1	1161.2	1146.3	1135.2	1121.9	1118.2	1104.8
22.5°	1290.1	1238.2	1196.0	1163.4	1134.5	1107.8	1091.5	1084.8	1076.7	1063.3	1063.3
25°	1233.8	1181.2	1144.9	1110.8	1085.6	1061.9	1050.7	1041.1	1032.2	1024.1	1021.1
27.5°	1186.3	1139.7	1095.2	1064.1	1042.6	1020.4	1010.7	998.1	991.5	984.8	975.9
30°	1136.0	1087.8	1050.0	1020.4	996.7	977.4	967.0	958.9	952.9	947.0	942.6
32.5°	1084.1	1040.4	1004.1	975.2	951.4	938.1	929.2	924.0	917.4	910.0	904.0
35°	1039.6	990.7	955.2	930.0	911.4	900.3	889.9	884.8	877.3	877.3	871.4
37.5°	987.0	944.0	912.2	889.2	872.9	862.5	850.7	847.7	842.5	839.6	837.3
40°	941.1	901.8	872.2	849.2	831.4	823.3	814.4	808.4	805.5	801.8	800.3
42.5°	893.7	856.6	828.4	807.7	792.9	786.2	778.1	774.3	767.7	762.5	761.8
45°	845.5	809.2	783.2	766.2	752.9	744.7	739.5	730.6	727.7	721.7	721.0
47.5°	801.0	765.5	739.5	725.4	713.6	707.7	699.5	689.9	686.2	682.5	681.7
50°	749.9	718.0	694.3	681.0	669.9	660.2	652.1	646.2	643.9	643.9	645.4
52.5°	698.0	672.1	652.8	635.8	625.4	615.0	607.6	604.7	601.0	605.4	608.4
55°	647.6	620.2	605.4	589.8	579.5	567.6	563.9	562.4	560.2	566.1	569.1
57.5°	593.5	575.0	557.2	540.9	532.0	524.6	518.7	518.0	522.4	523.9	532.8
60°	542.4	520.2	504.6	492.8	481.7	477.2	475.7	474.2	477.2	485.4	498.0
62.5°	486.1	469.1	452.0	443.9	436.5	428.3	428.3	429.8	436.5	446.1	458.7
65°	431.3	415.7	404.6	394.2	387.5	383.1	384.6	387.5	394.2	406.8	420.9
67.5°	374.9	364.6	354.2	344.6	337.9	338.6	339.4	343.1	351.2	366.1	379.4
70°	320.9	309.0	300.8	297.1	292.0	289.0	293.4	300.8	307.5	320.9	332.0
72.5°	266.8	257.1	251.2	249.0	247.5	245.3	246.0	254.2	263.8	277.1	290.5
75°	213.4	209.7	205.3	202.3	200.1	201.6	203.0	210.4	217.9	231.9	246.8
77.5°	165.2	160.8	157.8	157.1	155.6	156.4	160.1	166.0	173.4	183.8	195.6
80°	117.8	116.3	114.9	114.1	114.1	114.9	120.8	124.5	131.2	140.8	149.7
82.5°	77.8	77.1	77.1	77.1	77.8	77.8	80.8	86.0	91.1	97.8	105.2
85°	45.2	43.7	45.9	46.7	45.2	47.4	48.9	51.9	54.1	57.8	61.5
87.5°	18.5	20.0	19.3	20.0	20.0	21.5	20.7	23.7	25.2	26.7	25.9
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: P242814

CATALOG NUMBER: S125DR-S1270D835-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1745.8	1745.8	1745.8	1745.8
2.5°	1642.8	1648.0	1643.5	1649.5
5°	1533.1	1526.5	1530.9	1528.0
7.5°	1431.6	1425.7	1416.8	1413.8
10°	1337.5	1329.4	1328.6	1323.4
12.5°	1268.6	1261.2	1250.8	1249.3
15°	1204.1	1198.2	1193.0	1197.5
17.5°	1149.3	1144.1	1142.6	1138.2
20°	1098.2	1094.5	1095.9	1086.3
22.5°	1057.4	1049.3	1047.8	1047.8
25°	1014.4	1010.7	1007.0	1010.7
27.5°	976.6	972.9	971.5	972.2
30°	942.6	935.1	935.9	935.1
32.5°	905.5	901.1	899.6	898.1
35°	869.2	869.2	865.5	865.5
37.5°	835.9	835.1	832.9	834.4
40°	797.3	796.6	794.4	789.9
42.5°	760.3	757.3	756.6	755.8
45°	721.0	721.0	719.5	718.8
47.5°	682.5	683.9	686.9	686.2
50°	648.4	649.1	651.3	652.1
52.5°	610.6	615.8	618.7	618.0
55°	575.8	580.9	586.1	586.9
57.5°	540.9	547.6	552.8	554.3
60°	505.4	515.0	521.7	524.6
62.5°	471.3	482.4	489.1	489.1
65°	433.5	444.6	450.5	455.0
67.5°	394.2	405.3	411.3	415.0
70°	350.5	361.6	370.5	373.5
72.5°	307.5	317.1	323.8	327.5
75°	256.4	269.7	276.4	280.1
77.5°	207.5	220.8	224.5	226.7
80°	158.6	166.0	171.2	171.9
82.5°	112.6	118.6	119.3	121.5
85°	66.7	69.7	70.4	69.7
87.5°	27.4	26.7	26.7	28.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)