

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: PORTFOLIO

Report Number: P246155

Luminaire Tested: **LSR8B50D010 EC8B50940 8LBDW0B**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P246155
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13957)
Test Lab: INNOVATION CENTER-P1
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LSR8B50D010 EC8B50940 8LBDW0B
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
90 CRI 4000 CCT WITH SPECULAR BLACK TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4399.0 lumens
Efficiency: N/A
Efficacy: 83.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.26 / 1.18
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

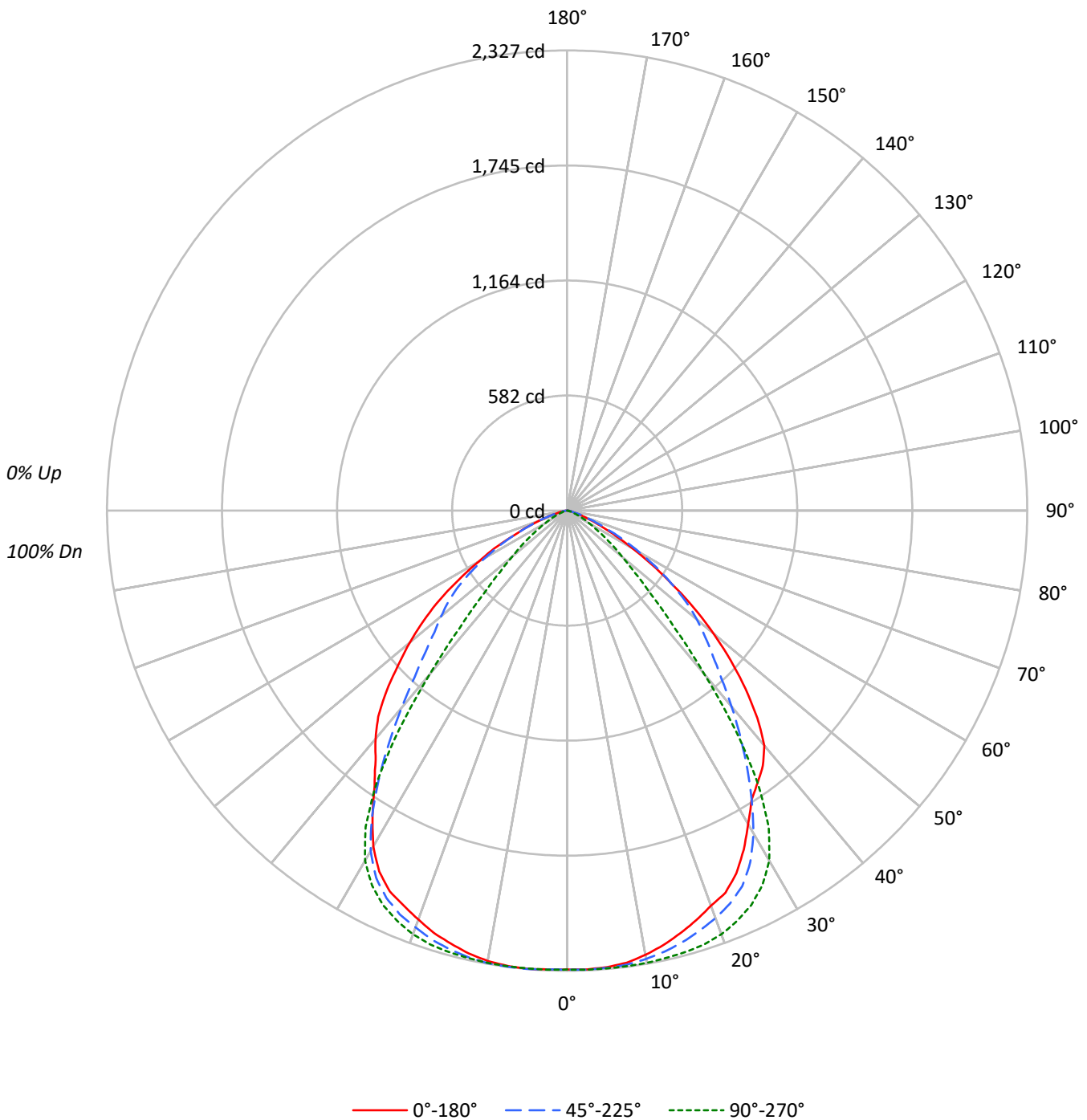
Input Watts (W): 53
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	90					90			
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79					79			
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70					70			
4	89	80	72	67	87	78	72	66	76	70	66	74	69	65	72	67	64	62					62			
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55					55			
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	51	50					50			
7	72	61	53	48	71	60	53	48	59	52	47	57	51	47	56	51	47	45					45			
8	68	56	48	43	66	55	48	43	54	48	43	53	47	43	52	46	42	41					41			
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37					37			
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34					34			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	71571	71571	71571
5°	71730	71922	71999
10°	71426	72713	72403
15°	70635	73777	72385
20°	69788	74816	72200
25°	68882	74901	72274
30°	65164	72794	69825
35°	63220	63265	63924
40°	62438	43531	60683
45°	55632	26131	56395
50°	46260	17390	49844
55°	34692	11989	42262
60°	23510	7993	31885
65°	14184	5181	21904
70°	7862	2813	13479
75°	3562	1191	6982
80°	3090	1332	4866
85°	3538	1769	4847



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.5	5.0
10°-20°	643.3	14.6
20°-30°	976.4	22.2
30°-40°	1025.5	23.3
40°-50°	768.9	17.5
50°-60°	493.3	11.2
60°-70°	211.0	4.8
70°-80°	49.9	1.1
80°-90°	9.3	0.2
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°	1841.2	41.9
0°-40°	2866.7	65.2
0°-60°	4128.8	93.9
0°-90°	4399.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4399.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2321	2321	2321	2321	2321	
5°	2317	2321	2324	2327	2326	220
15°	2213	2259	2311	2296	2267	624
25°	2024	2096	2201	2162	2124	925
35°	1679	1586	1681	1661	1698	1054
45°	1276	1043	599	1013	1293	977
55°	645	645	223	673	786	585
65°	194	229	71	295	300	207
75°	30	35	10	60	59	44
85°	10	6	5	10	14	11
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°	2321.0	2321.0	2321.0	2321.0	2321.0	2321.0	2321.0	2321.0	2321.0	2321.0	2321.0
2.5°	2322.2	2324.7	2323.5	2323.5	2322.2	2323.5	2323.5	2326.0	2326.0	2323.5	2322.2
5°	2317.3	2319.7	2319.7	2317.3	2317.3	2323.5	2319.7	2322.2	2322.2	2321.0	2321.0
7.5°	2306.1	2306.1	2311.0	2307.3	2307.3	2311.0	2309.8	2312.3	2314.8	2316.0	2316.0
10°	2281.1	2283.6	2284.9	2284.9	2286.1	2289.8	2292.3	2297.3	2299.8	2302.3	2303.6
12.5°	2250.0	2253.7	2255.0	2253.7	2257.5	2262.4	2268.7	2274.9	2278.7	2283.6	2287.4
15°	2212.6	2212.6	2215.1	2218.8	2221.3	2228.8	2235.0	2242.5	2252.5	2258.7	2264.9
17.5°	2171.5	2174.0	2177.7	2177.7	2182.7	2195.2	2198.9	2210.1	2221.3	2227.6	2240.0
20°	2126.7	2129.1	2132.9	2135.4	2141.6	2151.6	2159.0	2169.0	2181.5	2192.7	2205.1
22.5°	2091.8	2086.8	2089.3	2091.8	2098.0	2106.7	2115.4	2127.9	2140.4	2151.6	2164.0
25°	2024.5	2025.7	2029.5	2032.0	2039.5	2046.9	2056.9	2071.8	2083.0	2095.5	2109.2
27.5°	1933.6	1934.8	1941.0	1941.0	1947.2	1959.7	1965.9	1978.4	1993.4	2005.8	2022.0
30°	1830.1	1832.6	1832.6	1837.6	1841.3	1847.6	1853.8	1866.3	1873.7	1885.0	1907.4
32.5°	1735.5	1737.9	1736.7	1735.5	1731.7	1730.5	1729.2	1731.7	1734.2	1737.9	1746.7
35°	1679.4	1673.2	1668.2	1659.5	1649.5	1637.0	1625.8	1610.9	1597.2	1585.9	1573.5
37.5°	1625.8	1624.6	1617.1	1604.6	1584.7	1562.3	1536.1	1503.7	1471.3	1436.5	1402.8
40°	1551.1	1547.3	1541.1	1523.7	1501.2	1473.8	1439.0	1399.1	1346.7	1293.2	1238.4
42.5°	1424.0	1425.2	1417.8	1404.0	1382.9	1356.7	1320.6	1277.0	1220.9	1157.4	1086.4
45°	1275.7	1275.7	1273.2	1262.0	1247.1	1225.9	1198.5	1162.4	1107.6	1042.8	966.8
47.5°	1121.3	1122.5	1118.8	1116.3	1110.0	1096.3	1076.4	1049.0	1010.4	948.1	872.1
50°	964.3	964.3	970.5	969.3	969.3	964.3	955.6	939.4	905.7	855.9	784.9
52.5°	807.3	809.8	813.5	818.5	824.7	834.7	824.7	817.3	796.1	757.5	696.4
55°	645.3	647.8	654.1	662.8	670.3	680.2	682.7	682.7	671.5	645.3	599.2
57.5°	507.1	503.3	508.3	515.8	525.8	535.7	543.2	551.9	550.7	533.2	495.8
60°	381.2	382.5	386.2	393.7	401.2	409.9	419.9	427.3	431.1	422.4	398.7
62.5°	277.8	277.8	282.8	290.3	294.0	306.5	312.7	316.5	320.2	318.9	304.0
65°	194.4	196.8	199.3	203.1	206.8	214.3	218.0	225.5	228.0	229.2	218.0
67.5°	137.1	133.3	135.8	138.3	142.0	147.0	154.5	154.5	158.2	158.2	150.7
70°	87.2	87.2	88.5	92.2	94.7	95.9	98.4	100.9	104.7	103.4	103.4
72.5°	58.6	57.3	58.6	59.8	61.1	64.8	64.8	66.0	68.5	69.8	64.8
75°	29.9	31.2	33.6	32.4	36.1	33.6	34.9	38.6	37.4	34.9	34.9
77.5°	24.9	24.9	24.9	23.7	26.2	26.2	24.9	27.4	26.2	26.2	24.9
80°	17.4	18.7	17.4	16.2	17.4	16.2	16.2	16.2	16.2	16.2	14.9
82.5°	13.7	11.2	12.5	11.2	12.5	12.5	11.2	10.0	10.0	11.2	10.0
85°	10.0	7.5	8.7	8.7	7.5	7.5	7.5	7.5	7.5	6.2	6.2
87.5°	6.2	3.7	3.7	3.7	5.0	5.0	5.0	3.7	5.0	5.0	2.5
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2321.0	2321.0	2321.0	2321.0	2321.0	2321.0	2321.0	2321.0	2321.0	2321.0	2321.0
2.5°	2324.7	2323.5	2326.0	2324.7	2324.7	2323.5	2324.7	2323.5	2326.0	2321.0	2322.2
5°	2324.7	2322.2	2323.5	2324.7	2326.0	2323.5	2323.5	2323.5	2326.0	2323.5	2324.7
7.5°	2319.7	2318.5	2322.2	2324.7	2323.5	2322.2	2324.7	2323.5	2326.0	2324.7	2327.2
10°	2309.8	2311.0	2313.5	2317.3	2318.5	2319.7	2322.2	2322.2	2326.0	2321.0	2323.5
12.5°	2294.8	2299.8	2306.1	2308.5	2313.5	2313.5	2316.0	2317.3	2319.7	2318.5	2322.2
15°	2276.2	2282.4	2289.8	2296.1	2302.3	2306.1	2309.8	2311.0	2314.8	2311.0	2312.3
17.5°	2253.7	2261.2	2272.4	2279.9	2289.8	2293.6	2298.6	2301.1	2304.8	2302.3	2303.6
20°	2222.6	2231.3	2243.8	2255.0	2261.2	2269.9	2276.2	2279.9	2282.4	2279.9	2281.1
22.5°	2179.0	2191.4	2207.6	2216.3	2228.8	2236.3	2237.5	2246.3	2252.5	2246.3	2248.8
25°	2127.9	2140.4	2152.8	2171.5	2182.7	2191.4	2200.2	2201.4	2207.6	2206.4	2205.1
27.5°	2043.2	2059.4	2080.5	2095.5	2110.4	2124.2	2134.1	2136.6	2142.9	2140.4	2141.6
30°	1927.3	1944.8	1964.7	1988.4	2009.5	2023.2	2035.7	2044.4	2050.6	2046.9	2045.7
32.5°	1762.9	1780.3	1801.5	1825.2	1850.1	1870.0	1885.0	1896.2	1903.6	1901.1	1894.9
35°	1574.8	1579.7	1593.4	1612.1	1633.3	1654.5	1668.2	1680.6	1689.3	1691.8	1691.8
37.5°	1381.6	1365.5	1355.5	1355.5	1367.9	1376.6	1389.1	1396.6	1410.3	1415.3	1419.0
40°	1194.7	1157.4	1122.5	1096.3	1078.9	1077.7	1077.7	1081.4	1093.8	1110.0	1125.0
42.5°	1027.8	968.0	914.5	865.9	831.0	811.0	802.3	803.6	813.5	828.5	853.4
45°	894.5	819.8	752.5	693.9	646.6	615.4	600.5	599.2	606.7	624.2	651.6
47.5°	791.1	711.4	635.4	568.1	517.0	483.4	465.9	461.0	465.9	482.1	514.5
50°	705.1	622.9	544.4	474.7	419.9	385.0	368.8	362.5	368.8	382.5	414.9
52.5°	625.4	540.7	467.2	399.9	341.4	311.5	294.0	290.3	294.0	310.2	336.4
55°	533.2	461.0	388.7	321.4	270.4	240.5	226.7	223.0	226.7	241.7	269.1
57.5°	442.3	380.0	316.5	255.4	211.8	185.6	173.2	168.2	176.9	186.9	219.3
60°	357.5	307.7	254.1	200.6	164.5	140.8	130.8	129.6	132.1	144.5	166.9
62.5°	280.3	239.2	196.8	153.2	123.3	113.4	100.9	99.7	102.2	109.6	127.1
65°	201.8	175.7	143.3	112.1	88.5	74.7	69.8	71.0	73.5	78.5	94.7
67.5°	140.8	122.1	99.7	78.5	61.1	54.8	49.8	48.6	49.8	58.6	67.3
70°	94.7	83.5	67.3	59.8	42.4	33.6	34.9	31.2	36.1	36.1	43.6
72.5°	62.3	54.8	44.8	34.9	29.9	23.7	23.7	22.4	24.9	26.2	32.4
75°	32.4	24.9	24.9	17.4	12.5	6.2	11.2	10.0	8.7	10.0	12.5
77.5°	22.4	18.7	17.4	13.7	12.5	10.0	10.0	10.0	10.0	11.2	12.5
80°	13.7	13.7	10.0	8.7	7.5	6.2	7.5	7.5	7.5	7.5	8.7
82.5°	8.7	7.5	7.5	6.2	6.2	5.0	5.0	5.0	5.0	5.0	7.5
85°	7.5	5.0	5.0	3.7	5.0	8.7	3.7	5.0	5.0	5.0	3.7
87.5°	2.5	3.7	3.7	3.7	2.5	1.2	2.5	3.7	3.7	6.2	5.0
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°	2321.0	2321.0	2321.0	2321.0	2321.0	2321.0	2321.0	2321.0	2321.0	2321.0	2321.0
2.5°	2324.7	2326.0	2326.0	2324.7	2324.7	2322.2	2327.2	2323.5	2324.7	2329.7	2326.0
5°	2327.2	2328.5	2328.5	2327.2	2327.2	2327.2	2328.5	2328.5	2327.2	2326.0	2328.5
7.5°	2332.2	2331.0	2331.0	2328.5	2328.5	2326.0	2328.5	2324.7	2327.2	2324.7	2328.5
10°	2326.0	2327.2	2326.0	2324.7	2324.7	2323.5	2323.5	2319.7	2321.0	2317.3	2319.7
12.5°	2322.2	2321.0	2321.0	2318.5	2316.0	2313.5	2312.3	2308.5	2308.5	2299.8	2303.6
15°	2312.3	2313.5	2309.8	2304.8	2302.3	2296.1	2293.6	2288.6	2283.6	2277.4	2278.7
17.5°	2303.6	2299.8	2294.8	2289.8	2279.9	2274.9	2269.9	2262.4	2259.9	2252.5	2250.0
20°	2277.4	2274.9	2268.7	2259.9	2253.7	2242.5	2237.5	2230.1	2223.8	2216.3	2212.6
22.5°	2243.8	2241.3	2233.8	2225.1	2215.1	2210.1	2205.1	2191.4	2185.2	2177.7	2176.5
25°	2201.4	2197.7	2190.2	2180.2	2175.2	2161.5	2156.5	2146.6	2144.1	2136.6	2135.4
27.5°	2136.6	2131.6	2122.9	2110.4	2101.7	2093.0	2088.0	2080.5	2078.1	2070.6	2069.4
30°	2039.5	2033.2	2015.8	2010.8	1995.8	1987.1	1987.1	1977.1	1978.4	1973.4	1973.4
32.5°	1886.2	1876.2	1862.5	1852.6	1842.6	1837.6	1837.6	1833.9	1836.4	1836.4	1838.9
35°	1683.1	1669.4	1661.9	1655.7	1655.7	1660.7	1675.7	1679.4	1686.9	1693.1	1698.1
37.5°	1422.7	1421.5	1430.2	1437.7	1456.4	1477.6	1503.7	1526.2	1547.3	1562.3	1577.2
40°	1141.2	1172.3	1197.2	1232.2	1260.8	1301.9	1349.2	1387.9	1424.0	1450.2	1477.6
42.5°	890.8	930.6	983.0	1034.0	1085.1	1141.2	1203.5	1257.1	1304.4	1340.5	1369.2
45°	693.9	748.7	812.3	877.1	943.1	1012.9	1077.7	1132.5	1182.3	1219.7	1248.3
47.5°	559.4	619.2	691.4	762.5	837.2	910.7	983.0	1030.3	1071.4	1101.3	1127.5
50°	462.2	525.8	601.7	682.7	757.5	831.0	893.3	939.4	973.0	999.2	1015.4
52.5°	386.2	453.5	534.5	615.4	690.2	757.5	813.5	848.4	875.8	894.5	909.5
55°	318.9	383.7	459.7	535.7	609.2	672.7	718.8	745.0	766.2	777.4	786.1
57.5°	260.4	320.2	389.9	459.7	523.3	575.6	611.7	637.9	647.8	656.6	655.3
60°	204.3	260.4	323.9	383.7	438.5	480.9	507.1	522.0	529.5	533.2	530.7
62.5°	160.7	211.8	260.4	312.7	352.6	388.7	413.6	413.6	417.4	418.6	422.4
65°	119.6	158.2	200.6	239.2	271.6	295.3	309.0	312.7	317.7	316.5	314.0
67.5°	88.5	117.1	148.2	176.9	199.3	214.3	224.2	233.0	231.7	229.2	228.0
70°	61.1	79.7	107.1	124.6	140.8	155.7	158.2	159.5	160.7	162.0	159.5
72.5°	42.4	56.1	71.0	86.0	95.9	102.2	108.4	109.6	109.6	109.6	108.4
75°	21.2	28.7	42.4	48.6	57.3	59.8	64.8	64.8	68.5	63.5	62.3
77.5°	18.7	22.4	29.9	34.9	38.6	42.4	43.6	47.3	46.1	43.6	44.8
80°	11.2	13.7	18.7	21.2	26.2	27.4	28.7	29.9	28.7	29.9	29.9
82.5°	8.7	10.0	12.5	12.5	16.2	16.2	17.4	17.4	18.7	18.7	18.7
85°	5.0	8.7	7.5	14.9	10.0	10.0	12.5	14.9	12.5	12.5	14.9
87.5°	5.0	5.0	3.7	5.0	5.0	5.0	6.2	7.5	7.5	8.7	7.5
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: P246155

CATALOG NUMBER: LSR8B50D010 EC8B50940 8LBDW0B

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2321.0	2321.0	2321.0	2321.0
2.5°	2324.7	2327.2	2323.5	2322.2
5°	2328.5	2328.5	2326.0	2326.0
7.5°	2328.5	2328.5	2324.7	2322.2
10°	2318.5	2318.5	2314.8	2312.3
12.5°	2299.8	2299.8	2298.6	2294.8
15°	2276.2	2276.2	2271.2	2267.4
17.5°	2243.8	2246.3	2240.0	2240.0
20°	2208.9	2207.6	2202.7	2200.2
22.5°	2172.8	2170.3	2169.0	2161.5
25°	2134.1	2131.6	2127.9	2124.2
27.5°	2068.1	2066.9	2063.1	2058.1
30°	1967.2	1965.9	1961.0	1961.0
32.5°	1836.4	1835.1	1830.1	1831.4
35°	1700.6	1705.6	1703.1	1698.1
37.5°	1587.2	1590.9	1593.4	1590.9
40°	1492.5	1503.7	1505.0	1507.5
42.5°	1391.6	1406.5	1411.5	1414.0
45°	1270.7	1284.5	1295.7	1293.2
47.5°	1147.4	1157.4	1167.3	1159.9
50°	1029.1	1035.3	1039.0	1039.0
52.5°	916.9	916.9	915.7	916.9
55°	788.6	788.6	783.6	786.1
57.5°	654.1	656.6	652.8	646.6
60°	529.5	523.3	520.8	517.0
62.5°	412.4	412.4	403.7	414.9
65°	309.0	305.2	301.5	300.2
67.5°	224.2	223.0	219.3	218.0
70°	158.2	153.2	152.0	149.5
72.5°	105.9	105.9	103.4	103.4
75°	64.8	58.6	57.3	58.6
77.5°	44.8	43.6	43.6	42.4
80°	29.9	28.7	31.2	27.4
82.5°	18.7	19.9	18.7	19.9
85°	12.5	14.9	13.7	13.7
87.5°	7.5	7.5	7.5	7.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)