

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: P246221

Luminaire Tested: **LSR8B50D010 EC8B50935 8LBDW0MW**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P246221
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 EC8B50935 8LBDW0MW
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
90 CRI 3500 CCT WITH MATTE WHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4706.0 lumens
Efficiency: N/A
Efficacy: 88.8 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

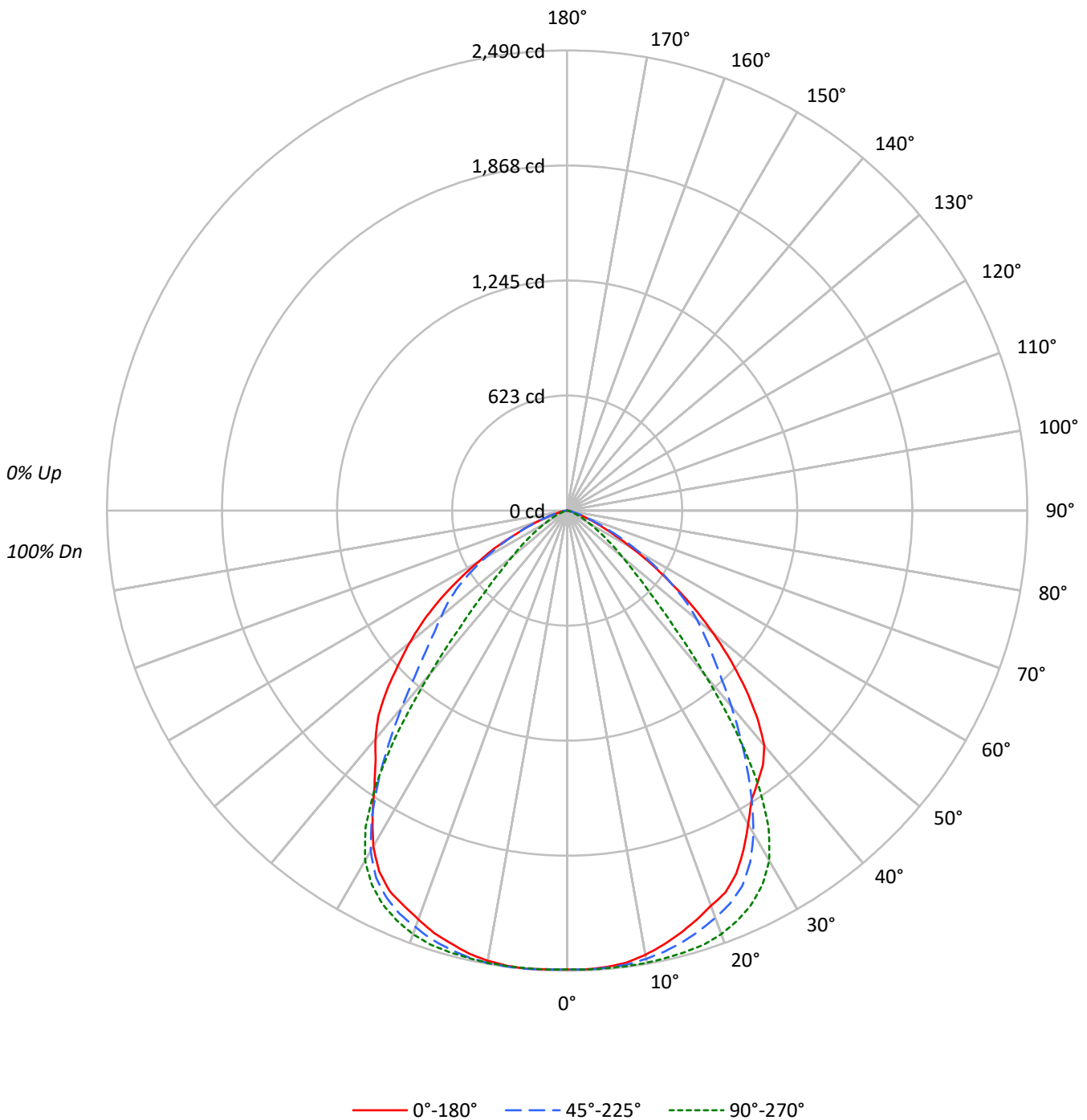
Input Watts (W): 53
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	76567	76567	76567
5°	76735	76943	77023
10°	76411	77788	77457
15°	75564	78926	77438
20°	74658	80037	77237
25°	73689	80127	77316
30°	69714	77875	74696
35°	67632	67680	68384
40°	66793	46566	64918
45°	59518	27958	60329
50°	49489	18604	53322
55°	37117	12827	45213
60°	25150	8548	34111
65°	15169	5545	23436
70°	8412	3002	14416
75°	3813	1275	7458
80°	3321	1421	5203
85°	3786	1875	5201



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	237.0	5.0
10°-20°	688.2	14.6
20°-30°	1044.5	22.2
30°-40°	1097.1	23.3
40°-50°	822.5	17.5
50°-60°	527.7	11.2
60°-70°	225.8	4.8
70°-80°	53.3	1.1
80°-90°	9.9	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°	1969.7	41.9
0°-40°	3066.7	65.2
0°-60°	4417.0	93.9
0°-90°	4706.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4706.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2483	2483	2483	2483	2483	
5°	2479	2483	2486	2490	2488	235
15°	2367	2416	2472	2456	2426	668
25°	2166	2242	2355	2312	2272	989
35°	1797	1697	1798	1777	1817	1128
45°	1365	1116	641	1084	1383	1045
55°	690	690	239	720	841	626
65°	208	245	76	316	321	222
75°	32	37	11	64	63	47
85°	11	7	5	11	15	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°	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0
2.5°	2484.3	2487.0	2485.7	2485.7	2484.3	2485.7	2485.7	2488.3	2488.3	2485.7	2484.3
5°	2479.0	2481.6	2481.6	2479.0	2479.0	2485.7	2481.6	2484.3	2484.3	2483.0	2483.0
7.5°	2467.0	2467.0	2472.3	2468.3	2468.3	2472.3	2471.0	2473.7	2476.3	2477.7	2477.7
10°	2440.3	2443.0	2444.3	2444.3	2445.7	2449.7	2452.3	2457.7	2460.3	2463.0	2464.3
12.5°	2407.0	2411.0	2412.3	2411.0	2415.0	2420.3	2427.0	2433.7	2437.7	2443.0	2447.0
15°	2367.0	2367.0	2369.7	2373.7	2376.4	2384.4	2391.0	2399.0	2409.7	2416.4	2423.0
17.5°	2323.1	2325.7	2329.7	2329.7	2335.1	2348.4	2352.4	2364.4	2376.4	2383.0	2396.4
20°	2275.1	2277.7	2281.7	2284.4	2291.1	2301.7	2309.7	2320.4	2333.7	2345.7	2359.0
22.5°	2237.7	2232.4	2235.1	2237.7	2244.4	2253.8	2263.1	2276.4	2289.7	2301.7	2315.1
25°	2165.8	2167.1	2171.1	2173.8	2181.8	2189.8	2200.4	2216.4	2228.4	2241.8	2256.4
27.5°	2068.5	2069.8	2076.5	2076.5	2083.1	2096.5	2103.1	2116.5	2132.5	2145.8	2163.1
30°	1957.9	1960.5	1960.5	1965.9	1969.8	1976.5	1983.2	1996.5	2004.5	2016.5	2040.5
32.5°	1856.6	1859.2	1857.9	1856.6	1852.6	1851.2	1849.9	1852.6	1855.2	1859.2	1868.6
35°	1796.6	1789.9	1784.6	1775.3	1764.6	1751.3	1739.3	1723.3	1708.6	1696.6	1683.3
37.5°	1739.3	1737.9	1730.0	1716.6	1695.3	1671.3	1643.3	1608.7	1574.0	1536.7	1500.7
40°	1659.3	1655.3	1648.7	1630.0	1606.0	1576.7	1539.4	1496.7	1440.7	1383.4	1324.8
42.5°	1523.4	1524.7	1516.7	1502.0	1479.4	1451.4	1412.7	1366.1	1306.1	1238.1	1162.2
45°	1364.8	1364.8	1362.1	1350.1	1334.1	1311.5	1282.1	1243.5	1184.9	1115.5	1034.2
47.5°	1199.5	1200.8	1196.8	1194.2	1187.5	1172.9	1151.5	1122.2	1080.9	1014.2	932.9
50°	1031.6	1031.6	1038.2	1036.9	1036.9	1031.6	1022.3	1004.9	968.9	915.6	839.7
52.5°	863.6	866.3	870.3	875.6	882.3	893.0	882.3	874.3	851.6	810.3	745.0
55°	690.4	693.1	699.7	709.0	717.1	727.7	730.4	730.4	718.4	690.4	641.1
57.5°	542.5	538.4	543.8	551.8	562.4	573.1	581.1	590.4	589.1	570.4	530.5
60°	407.8	409.2	413.2	421.2	429.2	438.5	449.2	457.1	461.2	451.8	426.5
62.5°	297.2	297.2	302.5	310.5	314.5	327.9	334.5	338.5	342.5	341.2	325.2
65°	207.9	210.6	213.2	217.3	221.2	229.2	233.2	241.2	243.9	245.2	233.2
67.5°	146.6	142.6	145.3	147.9	151.9	157.3	165.3	165.3	169.3	169.3	161.3
70°	93.3	93.3	94.6	98.6	101.3	102.6	105.3	107.9	112.0	110.6	110.6
72.5°	62.6	61.3	62.6	64.0	65.3	69.3	69.3	70.6	73.3	74.6	69.3
75°	32.0	33.3	36.0	34.7	38.6	36.0	37.3	41.3	40.0	37.3	37.3
77.5°	26.6	26.6	26.6	25.3	28.0	28.0	26.6	29.3	28.0	28.0	26.6
80°	18.7	20.0	18.7	17.3	18.7	17.3	17.3	17.3	17.3	17.3	16.0
82.5°	14.7	12.0	13.3	12.0	13.3	13.3	12.0	10.7	10.7	12.0	10.7
85°	10.7	8.0	9.3	9.3	8.0	8.0	8.0	8.0	8.0	6.7	6.7
87.5°	6.7	4.0	4.0	4.0	5.3	5.3	5.3	4.0	5.3	5.3	2.7
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0
2.5°	2487.0	2485.7	2488.3	2487.0	2487.0	2485.7	2487.0	2485.7	2488.3	2483.0	2484.3
5°	2487.0	2484.3	2485.7	2487.0	2488.3	2485.7	2485.7	2485.7	2488.3	2485.7	2487.0
7.5°	2481.6	2480.3	2484.3	2487.0	2485.7	2484.3	2487.0	2485.7	2488.3	2487.0	2489.6
10°	2471.0	2472.3	2475.0	2479.0	2480.3	2481.6	2484.3	2484.3	2488.3	2483.0	2485.7
12.5°	2455.0	2460.3	2467.0	2469.6	2475.0	2475.0	2477.7	2479.0	2481.6	2480.3	2484.3
15°	2435.0	2441.7	2449.7	2456.3	2463.0	2467.0	2471.0	2472.3	2476.3	2472.3	2473.7
17.5°	2411.0	2419.0	2431.0	2439.0	2449.7	2453.7	2459.0	2461.7	2465.7	2463.0	2464.3
20°	2377.7	2387.0	2400.3	2412.3	2419.0	2428.3	2435.0	2439.0	2441.7	2439.0	2440.3
22.5°	2331.0	2344.4	2361.7	2371.0	2384.4	2392.4	2393.7	2403.0	2409.7	2403.0	2405.7
25°	2276.4	2289.7	2303.1	2323.1	2335.1	2344.4	2353.7	2355.0	2361.7	2360.4	2359.0
27.5°	2185.8	2203.1	2225.7	2241.8	2257.7	2272.4	2283.1	2285.7	2292.4	2289.7	2291.1
30°	2061.8	2080.5	2101.8	2127.1	2149.8	2164.4	2177.8	2187.1	2193.8	2189.8	2188.4
32.5°	1885.9	1904.6	1927.2	1952.5	1979.2	2000.5	2016.5	2028.5	2036.5	2033.8	2027.2
35°	1684.7	1690.0	1704.6	1724.6	1747.3	1769.9	1784.6	1797.9	1807.2	1809.9	1809.9
37.5°	1478.1	1460.7	1450.1	1450.1	1463.4	1472.7	1486.1	1494.0	1508.7	1514.0	1518.0
40°	1278.1	1238.1	1200.8	1172.9	1154.2	1152.9	1152.9	1156.8	1170.2	1187.5	1203.5
42.5°	1099.5	1035.6	978.3	926.3	889.0	867.7	858.3	859.7	870.3	886.3	912.9
45°	956.9	877.0	805.0	742.4	691.7	658.4	642.4	641.1	649.1	667.7	697.1
47.5°	846.3	761.0	679.7	607.7	553.1	517.1	498.5	493.1	498.5	515.8	550.4
50°	754.4	666.4	582.4	507.8	449.2	411.8	394.5	387.8	394.5	409.2	443.8
52.5°	669.1	578.4	499.8	427.8	365.2	333.2	314.5	310.5	314.5	331.9	359.9
55°	570.4	493.1	415.8	343.9	289.2	257.2	242.6	238.6	242.6	258.6	287.9
57.5°	473.2	406.5	338.5	273.2	226.6	198.6	185.3	179.9	189.2	199.9	234.6
60°	382.5	329.2	271.9	214.6	175.9	150.6	139.9	138.6	141.3	154.6	178.6
62.5°	299.9	255.9	210.6	163.9	131.9	121.3	107.9	106.6	109.3	117.3	136.0
65°	215.9	187.9	153.3	119.9	94.6	80.0	74.6	76.0	78.6	84.0	101.3
67.5°	150.6	130.6	106.6	84.0	65.3	58.6	53.3	52.0	53.3	62.6	72.0
70°	101.3	89.3	72.0	64.0	45.3	36.0	37.3	33.3	38.6	38.6	46.6
72.5°	66.6	58.6	48.0	37.3	32.0	25.3	25.3	24.0	26.6	28.0	34.7
75°	34.7	26.6	26.6	18.7	13.3	6.7	12.0	10.7	9.3	10.7	13.3
77.5°	24.0	20.0	18.7	14.7	13.3	10.7	10.7	10.7	10.7	12.0	13.3
80°	14.7	14.7	10.7	9.3	8.0	6.7	8.0	8.0	8.0	8.0	9.3
82.5°	9.3	8.0	8.0	6.7	6.7	5.3	5.3	5.3	5.3	5.3	8.0
85°	8.0	5.3	5.3	4.0	5.3	9.3	4.0	5.3	5.3	5.3	4.0
87.5°	2.7	4.0	4.0	4.0	2.7	1.3	2.7	4.0	4.0	6.7	5.3
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°	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0	2483.0
2.5°	2487.0	2488.3	2488.3	2487.0	2487.0	2484.3	2489.6	2485.7	2487.0	2492.3	2488.3
5°	2489.6	2491.0	2491.0	2489.6	2489.6	2489.6	2491.0	2491.0	2489.6	2488.3	2491.0
7.5°	2495.0	2493.6	2493.6	2491.0	2491.0	2488.3	2491.0	2487.0	2489.6	2487.0	2491.0
10°	2488.3	2489.6	2488.3	2487.0	2487.0	2485.7	2485.7	2481.6	2483.0	2479.0	2481.6
12.5°	2484.3	2483.0	2483.0	2480.3	2477.7	2475.0	2473.7	2469.6	2469.6	2460.3	2464.3
15°	2473.7	2475.0	2471.0	2465.7	2463.0	2456.3	2453.7	2448.3	2443.0	2436.3	2437.7
17.5°	2464.3	2460.3	2455.0	2449.7	2439.0	2433.7	2428.3	2420.3	2417.7	2409.7	2407.0
20°	2436.3	2433.7	2427.0	2417.7	2411.0	2399.0	2393.7	2385.7	2379.0	2371.0	2367.0
22.5°	2400.3	2397.7	2389.7	2380.4	2369.7	2364.4	2359.0	2344.4	2337.7	2329.7	2328.4
25°	2355.0	2351.0	2343.0	2332.4	2327.0	2312.4	2307.0	2296.4	2293.7	2285.7	2284.4
27.5°	2285.7	2280.4	2271.1	2257.7	2248.4	2239.1	2233.8	2225.7	2223.1	2215.1	2213.8
30°	2181.8	2175.1	2156.4	2151.1	2135.1	2125.8	2125.8	2115.1	2116.5	2111.1	2111.1
32.5°	2017.8	2007.2	1992.5	1981.8	1971.2	1965.9	1965.9	1961.9	1964.5	1964.5	1967.2
35°	1800.6	1785.9	1777.9	1771.3	1771.3	1776.6	1792.6	1796.6	1804.6	1811.3	1816.6
37.5°	1522.0	1520.7	1530.0	1538.0	1558.0	1580.7	1608.7	1632.7	1655.3	1671.3	1687.3
40°	1220.8	1254.2	1280.8	1318.1	1348.8	1392.8	1443.4	1484.7	1523.4	1551.4	1580.7
42.5°	952.9	995.6	1051.6	1106.2	1160.9	1220.8	1287.5	1344.8	1395.4	1434.1	1464.7
45°	742.4	801.0	869.0	938.3	1008.9	1083.6	1152.9	1211.5	1264.8	1304.8	1335.5
47.5°	598.4	662.4	739.7	815.7	895.6	974.3	1051.6	1102.2	1146.2	1178.2	1206.2
50°	494.5	562.4	643.7	730.4	810.3	889.0	955.6	1004.9	1040.9	1068.9	1086.2
52.5°	413.2	485.1	571.8	658.4	738.3	810.3	870.3	907.6	937.0	956.9	972.9
55°	341.2	410.5	491.8	573.1	651.7	719.7	769.0	797.0	819.6	831.6	841.0
57.5°	278.6	342.5	417.2	491.8	559.8	615.8	654.4	682.4	693.1	702.4	701.0
60°	218.6	278.6	346.5	410.5	469.1	514.4	542.5	558.4	566.4	570.4	567.8
62.5°	171.9	226.6	278.6	334.5	377.2	415.8	442.5	442.5	446.5	447.8	451.8
65°	127.9	169.3	214.6	255.9	290.5	315.9	330.5	334.5	339.9	338.5	335.9
67.5°	94.6	125.3	158.6	189.2	213.2	229.2	239.9	249.2	247.9	245.2	243.9
70°	65.3	85.3	114.6	133.3	150.6	166.6	169.3	170.6	171.9	173.3	170.6
72.5°	45.3	60.0	76.0	92.0	102.6	109.3	116.0	117.3	117.3	117.3	116.0
75°	22.7	30.7	45.3	52.0	61.3	64.0	69.3	69.3	73.3	68.0	66.6
77.5°	20.0	24.0	32.0	37.3	41.3	45.3	46.6	50.6	49.3	46.6	48.0
80°	12.0	14.7	20.0	22.7	28.0	29.3	30.7	32.0	30.7	32.0	32.0
82.5°	9.3	10.7	13.3	13.3	17.3	17.3	18.7	18.7	20.0	20.0	20.0
85°	5.3	9.3	8.0	16.0	10.7	10.7	13.3	16.0	13.3	13.3	16.0
87.5°	5.3	5.3	4.0	5.3	5.3	5.3	6.7	8.0	8.0	9.3	8.0
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: P246221

CATALOG NUMBER: LSR8B50D010 EC8B50935 8LBDW0MW

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2483.0	2483.0	2483.0	2483.0
2.5°	2487.0	2489.6	2485.7	2484.3
5°	2491.0	2491.0	2488.3	2488.3
7.5°	2491.0	2491.0	2487.0	2484.3
10°	2480.3	2480.3	2476.3	2473.7
12.5°	2460.3	2460.3	2459.0	2455.0
15°	2435.0	2435.0	2429.7	2425.7
17.5°	2400.3	2403.0	2396.4	2396.4
20°	2363.0	2361.7	2356.4	2353.7
22.5°	2324.4	2321.7	2320.4	2312.4
25°	2283.1	2280.4	2276.4	2272.4
27.5°	2212.4	2211.1	2207.1	2201.8
30°	2104.5	2103.1	2097.8	2097.8
32.5°	1964.5	1963.2	1957.9	1959.2
35°	1819.2	1824.6	1821.9	1816.6
37.5°	1698.0	1702.0	1704.6	1702.0
40°	1596.7	1608.7	1610.0	1612.7
42.5°	1488.7	1504.7	1510.1	1512.7
45°	1359.4	1374.1	1386.1	1383.4
47.5°	1227.5	1238.1	1248.8	1240.8
50°	1100.9	1107.5	1111.5	1111.5
52.5°	980.9	980.9	979.6	980.9
55°	843.6	843.6	838.3	841.0
57.5°	699.7	702.4	698.4	691.7
60°	566.4	559.8	557.1	553.1
62.5°	441.2	441.2	431.8	443.8
65°	330.5	326.5	322.5	321.2
67.5°	239.9	238.6	234.6	233.2
70°	169.3	163.9	162.6	159.9
72.5°	113.3	113.3	110.6	110.6
75°	69.3	62.6	61.3	62.6
77.5°	48.0	46.6	46.6	45.3
80°	32.0	30.7	33.3	29.3
82.5°	20.0	21.3	20.0	21.3
85°	13.3	16.0	14.7	14.7
87.5°	8.0	8.0	8.0	8.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)