

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: P246125

Luminaire Tested: **LSR8B50D010 EC8B50840 8LBDW0B**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P246125
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 EC8B50840 8LBDW0B
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 4000 CCT WITH SPECULAR BLACK TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4907.0 lumens
Efficiency: N/A
Efficacy: 92.6 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

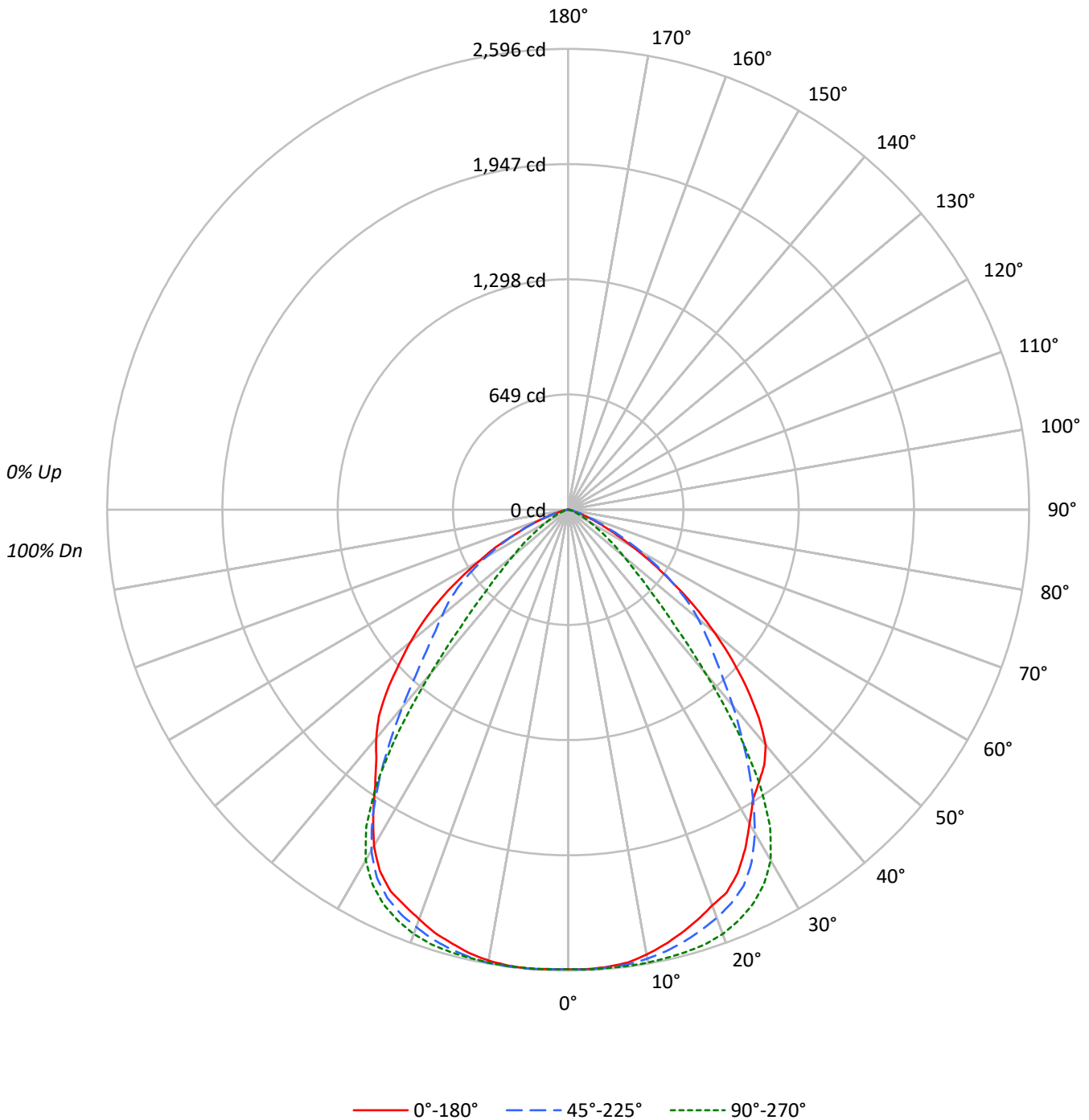
Input Watts (W): 53
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	79835	79835	79835
5°	80010	80227	80314
10°	79677	81111	80763
15°	78792	82297	80746
20°	77848	83456	80535
25°	76837	83550	80620
30°	72691	81201	77886
35°	70519	70572	71306
40°	69647	48558	67691
45°	62060	29153	62906
50°	51600	19400	55600
55°	38703	13376	47143
60°	26229	8912	35567
65°	15819	5779	24436
70°	8773	3138	15039
75°	3979	1322	7780
80°	3463	1474	5434
85°	3927	1946	5413



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	247.1	5.0
10°-20°	717.6	14.6
20°-30°	1089.1	22.2
30°-40°	1143.9	23.3
40°-50°	857.6	17.5
50°-60°	550.3	11.2
60°-70°	235.4	4.8
70°-80°	55.6	1.1
80°-90°	10.3	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°	2053.8	41.9
0°-40°	3197.7	65.2
0°-60°	4605.6	93.9
0°-90°	4907.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4907.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2589	2589	2589	2589	2589	
5°	2585	2589	2592	2596	2595	246
15°	2468	2520	2578	2561	2529	696
25°	2258	2338	2456	2411	2370	1032
35°	1873	1769	1875	1852	1894	1176
45°	1423	1163	668	1130	1442	1090
55°	720	720	249	750	877	653
65°	217	256	79	329	335	231
75°	33	39	11	67	65	49
85°	11	7	6	11	15	12
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°	2589.0	2589.0	2589.0	2589.0	2589.0	2589.0	2589.0	2589.0	2589.0	2589.0	2589.0
2.5°	2590.4	2593.2	2591.8	2591.8	2590.4	2591.8	2591.8	2594.6	2594.6	2591.8	2590.4
5°	2584.8	2587.6	2587.6	2584.8	2584.8	2591.8	2587.6	2590.4	2590.4	2589.0	2589.0
7.5°	2572.4	2572.4	2577.9	2573.8	2573.8	2577.9	2576.5	2579.3	2582.1	2583.5	2583.5
10°	2544.6	2547.3	2548.7	2548.7	2550.1	2554.3	2557.1	2562.6	2565.4	2568.2	2569.6
12.5°	2509.8	2514.0	2515.4	2514.0	2518.2	2523.7	2530.7	2537.6	2541.8	2547.3	2551.5
15°	2468.1	2468.1	2470.9	2475.1	2477.9	2486.2	2493.1	2501.5	2512.6	2519.6	2526.5
17.5°	2422.3	2425.1	2429.2	2429.2	2434.8	2448.7	2452.8	2465.4	2477.9	2484.8	2498.7
20°	2372.3	2375.0	2379.2	2382.0	2388.9	2400.0	2408.4	2419.5	2433.4	2445.9	2459.8
22.5°	2333.3	2327.8	2330.5	2333.3	2340.3	2350.0	2359.7	2373.6	2387.5	2400.0	2413.9
25°	2258.3	2259.7	2263.8	2266.6	2275.0	2283.3	2294.4	2311.1	2323.6	2337.5	2352.8
27.5°	2156.8	2158.2	2165.2	2165.2	2172.1	2186.0	2193.0	2206.9	2223.6	2237.4	2255.5
30°	2041.5	2044.3	2044.3	2049.8	2054.0	2060.9	2067.9	2081.8	2090.1	2102.6	2127.7
32.5°	1935.9	1938.6	1937.2	1935.9	1931.7	1930.3	1928.9	1931.7	1934.5	1938.6	1948.4
35°	1873.3	1866.4	1860.8	1851.1	1840.0	1826.1	1813.6	1796.9	1781.6	1769.1	1755.2
37.5°	1813.6	1812.2	1803.8	1789.9	1767.7	1742.7	1713.5	1677.4	1641.2	1602.3	1564.8
40°	1730.2	1726.0	1719.1	1699.6	1674.6	1644.0	1605.1	1560.6	1502.3	1442.5	1381.4
42.5°	1588.4	1589.8	1581.5	1566.2	1542.6	1513.4	1473.1	1424.5	1361.9	1291.0	1211.8
45°	1423.1	1423.1	1420.3	1407.8	1391.1	1367.5	1336.9	1296.6	1235.5	1163.2	1078.4
47.5°	1250.7	1252.1	1247.9	1245.2	1238.2	1223.0	1200.7	1170.1	1127.1	1057.6	972.8
50°	1075.6	1075.6	1082.6	1081.2	1081.2	1075.6	1065.9	1047.8	1010.3	954.7	875.5
52.5°	900.5	903.3	907.5	913.0	920.0	931.1	920.0	911.6	888.0	844.9	776.9
55°	719.9	722.7	729.6	739.3	747.7	758.8	761.6	761.6	749.0	719.9	668.5
57.5°	565.6	561.4	567.0	575.3	586.5	597.6	605.9	615.6	614.2	594.8	553.1
60°	425.3	426.6	430.8	439.2	447.5	457.2	468.3	476.7	480.8	471.1	444.7
62.5°	309.9	309.9	315.5	323.8	328.0	341.9	348.8	353.0	357.1	355.8	339.1
65°	216.8	219.6	222.4	226.5	230.7	239.0	243.2	251.5	254.3	255.7	243.2
67.5°	152.9	148.7	151.5	154.2	158.4	164.0	172.3	172.3	176.5	176.5	168.1
70°	97.3	97.3	98.7	102.8	105.6	107.0	109.8	112.6	116.7	115.3	115.3
72.5°	65.3	63.9	65.3	66.7	68.1	72.3	72.3	73.7	76.4	77.8	72.3
75°	33.4	34.8	37.5	36.1	40.3	37.5	38.9	43.1	41.7	38.9	38.9
77.5°	27.8	27.8	27.8	26.4	29.2	29.2	27.8	30.6	29.2	29.2	27.8
80°	19.5	20.8	19.5	18.1	19.5	18.1	18.1	18.1	18.1	18.1	16.7
82.5°	15.3	12.5	13.9	12.5	13.9	13.9	12.5	11.1	11.1	12.5	11.1
85°	11.1	8.3	9.7	9.7	8.3	8.3	8.3	8.3	8.3	6.9	6.9
87.5°	6.9	4.2	4.2	4.2	5.5	5.5	5.5	4.2	5.5	5.5	2.8
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2589.0	2589.0	2589.0	2589.0	2589.0	2589.0	2589.0	2589.0	2589.0	2589.0	2589.0
2.5°	2593.2	2591.8	2594.6	2593.2	2593.2	2591.8	2593.2	2591.8	2594.6	2589.0	2590.4
5°	2593.2	2590.4	2591.8	2593.2	2594.6	2591.8	2591.8	2591.8	2594.6	2591.8	2593.2
7.5°	2587.6	2586.2	2590.4	2593.2	2591.8	2590.4	2593.2	2591.8	2594.6	2593.2	2596.0
10°	2576.5	2577.9	2580.7	2584.8	2586.2	2587.6	2590.4	2590.4	2594.6	2589.0	2591.8
12.5°	2559.9	2565.4	2572.4	2575.1	2580.7	2580.7	2583.5	2584.8	2587.6	2586.2	2590.4
15°	2539.0	2545.9	2554.3	2561.2	2568.2	2572.4	2576.5	2577.9	2582.1	2577.9	2579.3
17.5°	2514.0	2522.3	2534.8	2543.2	2554.3	2558.5	2564.0	2566.8	2571.0	2568.2	2569.6
20°	2479.2	2489.0	2502.9	2515.4	2522.3	2532.0	2539.0	2543.2	2545.9	2543.2	2544.6
22.5°	2430.6	2444.5	2462.6	2472.3	2486.2	2494.5	2495.9	2505.7	2512.6	2505.7	2508.4
25°	2373.6	2387.5	2401.4	2422.3	2434.8	2444.5	2454.2	2455.6	2462.6	2461.2	2459.8
27.5°	2279.1	2297.2	2320.8	2337.5	2354.2	2369.5	2380.6	2383.3	2390.3	2387.5	2388.9
30°	2149.9	2169.4	2191.6	2218.0	2241.6	2256.9	2270.8	2280.5	2287.4	2283.3	2281.9
32.5°	1966.5	1985.9	2009.5	2035.9	2063.7	2085.9	2102.6	2115.1	2123.5	2120.7	2113.8
35°	1756.6	1762.2	1777.5	1798.3	1821.9	1845.5	1860.8	1874.7	1884.4	1887.2	1887.2
37.5°	1541.2	1523.1	1512.0	1512.0	1525.9	1535.6	1549.5	1557.9	1573.2	1578.7	1582.9
40°	1332.7	1291.0	1252.1	1223.0	1203.5	1202.1	1202.1	1206.3	1220.2	1238.2	1254.9
42.5°	1146.5	1079.8	1020.1	965.8	926.9	904.7	895.0	896.4	907.5	924.2	951.9
45°	997.8	914.4	839.4	774.1	721.3	686.5	669.8	668.5	676.8	696.2	726.8
47.5°	882.5	793.5	708.7	633.7	576.7	539.2	519.8	514.2	519.8	537.8	574.0
50°	786.6	694.9	607.3	529.5	468.3	429.4	411.3	404.4	411.3	426.6	462.8
52.5°	697.6	603.1	521.1	446.1	380.8	347.4	328.0	323.8	328.0	346.0	375.2
55°	594.8	514.2	433.6	358.5	301.6	268.2	252.9	248.8	252.9	269.6	300.2
57.5°	493.4	423.9	353.0	284.9	236.3	207.1	193.2	187.6	197.3	208.4	244.6
60°	398.8	343.3	283.5	223.7	183.5	157.0	145.9	144.5	147.3	161.2	186.2
62.5°	312.7	266.8	219.6	170.9	137.6	126.5	112.6	111.2	113.9	122.3	141.8
65°	225.1	196.0	159.8	125.1	98.7	83.4	77.8	79.2	82.0	87.6	105.6
67.5°	157.0	136.2	111.2	87.6	68.1	61.1	55.6	54.2	55.6	65.3	75.0
70°	105.6	93.1	75.0	66.7	47.3	37.5	38.9	34.8	40.3	40.3	48.6
72.5°	69.5	61.1	50.0	38.9	33.4	26.4	26.4	25.0	27.8	29.2	36.1
75°	36.1	27.8	27.8	19.5	13.9	6.9	12.5	11.1	9.7	11.1	13.9
77.5°	25.0	20.8	19.5	15.3	13.9	11.1	11.1	11.1	11.1	12.5	13.9
80°	15.3	15.3	11.1	9.7	8.3	6.9	8.3	8.3	8.3	8.3	9.7
82.5°	9.7	8.3	8.3	6.9	6.9	5.5	5.5	5.5	5.5	5.5	8.3
85°	8.3	5.5	5.5	4.2	5.5	9.7	4.2	5.5	5.5	5.5	4.2
87.5°	2.8	4.2	4.2	4.2	2.8	1.4	2.8	4.2	4.2	6.9	5.5
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°	2589.0	2589.0	2589.0	2589.0	2589.0	2589.0	2589.0	2589.0	2589.0	2589.0	2589.0
2.5°	2593.2	2594.6	2594.6	2593.2	2593.2	2590.4	2596.0	2591.8	2593.2	2598.8	2594.6
5°	2596.0	2597.4	2597.4	2596.0	2596.0	2596.0	2597.4	2597.4	2596.0	2594.6	2597.4
7.5°	2601.5	2600.1	2600.1	2597.4	2597.4	2594.6	2597.4	2593.2	2596.0	2593.2	2597.4
10°	2594.6	2596.0	2594.6	2593.2	2593.2	2591.8	2591.8	2587.6	2589.0	2584.8	2587.6
12.5°	2590.4	2589.0	2589.0	2586.2	2583.5	2580.7	2579.3	2575.1	2575.1	2565.4	2569.6
15°	2579.3	2580.7	2576.5	2571.0	2568.2	2561.2	2558.5	2552.9	2547.3	2540.4	2541.8
17.5°	2569.6	2565.4	2559.9	2554.3	2543.2	2537.6	2532.0	2523.7	2520.9	2512.6	2509.8
20°	2540.4	2537.6	2530.7	2520.9	2514.0	2501.5	2495.9	2487.6	2480.6	2472.3	2468.1
22.5°	2502.9	2500.1	2491.7	2482.0	2470.9	2465.4	2459.8	2444.5	2437.5	2429.2	2427.8
25°	2455.6	2451.4	2443.1	2432.0	2426.4	2411.2	2405.6	2394.5	2391.7	2383.3	2382.0
27.5°	2383.3	2377.8	2368.1	2354.2	2344.4	2334.7	2329.2	2320.8	2318.1	2309.7	2308.3
30°	2275.0	2268.0	2248.5	2243.0	2226.3	2216.6	2216.6	2205.5	2206.9	2201.3	2201.3
32.5°	2104.0	2092.9	2077.6	2066.5	2055.4	2049.8	2049.8	2045.6	2048.4	2048.4	2051.2
35°	1877.5	1862.2	1853.9	1846.9	1846.9	1852.5	1869.2	1873.3	1881.7	1888.6	1894.2
37.5°	1587.0	1585.7	1595.4	1603.7	1624.6	1648.2	1677.4	1702.4	1726.0	1742.7	1759.4
40°	1273.0	1307.7	1335.5	1374.4	1406.4	1452.2	1505.1	1548.1	1588.4	1617.6	1648.2
42.5°	993.6	1038.1	1096.5	1153.4	1210.4	1273.0	1342.5	1402.2	1455.0	1495.3	1527.3
45°	774.1	835.2	906.1	978.4	1052.0	1129.8	1202.1	1263.2	1318.8	1360.5	1392.5
47.5°	624.0	690.7	771.3	850.5	933.9	1015.9	1096.5	1149.3	1195.1	1228.5	1257.7
50°	515.6	586.5	671.2	761.6	844.9	926.9	996.4	1047.8	1085.4	1114.5	1132.6
52.5°	430.8	505.8	596.2	686.5	769.9	844.9	907.5	946.4	977.0	997.8	1014.5
55°	355.8	428.0	512.8	597.6	679.6	750.4	801.8	831.1	854.7	867.2	876.9
57.5°	290.5	357.1	435.0	512.8	583.7	642.1	682.4	711.5	722.7	732.4	731.0
60°	227.9	290.5	361.3	428.0	489.2	536.4	565.6	582.3	590.6	594.8	592.0
62.5°	179.3	236.3	290.5	348.8	393.3	433.6	461.4	461.4	465.5	466.9	471.1
65°	133.4	176.5	223.7	266.8	302.9	329.4	344.7	348.8	354.4	353.0	350.2
67.5°	98.7	130.6	165.4	197.3	222.4	239.0	250.1	259.9	258.5	255.7	254.3
70°	68.1	89.0	119.5	139.0	157.0	173.7	176.5	177.9	179.3	180.7	177.9
72.5°	47.3	62.5	79.2	95.9	107.0	113.9	120.9	122.3	122.3	122.3	120.9
75°	23.6	32.0	47.3	54.2	63.9	66.7	72.3	72.3	76.4	70.9	69.5
77.5°	20.8	25.0	33.4	38.9	43.1	47.3	48.6	52.8	51.4	48.6	50.0
80°	12.5	15.3	20.8	23.6	29.2	30.6	32.0	33.4	32.0	33.4	33.4
82.5°	9.7	11.1	13.9	13.9	18.1	18.1	19.5	19.5	20.8	20.8	20.8
85°	5.5	9.7	8.3	16.7	11.1	11.1	13.9	16.7	13.9	13.9	16.7
87.5°	5.5	5.5	4.2	5.5	5.5	5.5	6.9	8.3	8.3	9.7	8.3
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: P246125

CATALOG NUMBER: LSR8B50D010 EC8B50840 8LBDW0B

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2589.0	2589.0	2589.0	2589.0
2.5°	2593.2	2596.0	2591.8	2590.4
5°	2597.4	2597.4	2594.6	2594.6
7.5°	2597.4	2597.4	2593.2	2590.4
10°	2586.2	2586.2	2582.1	2579.3
12.5°	2565.4	2565.4	2564.0	2559.9
15°	2539.0	2539.0	2533.4	2529.3
17.5°	2502.9	2505.7	2498.7	2498.7
20°	2464.0	2462.6	2457.0	2454.2
22.5°	2423.7	2420.9	2419.5	2411.2
25°	2380.6	2377.8	2373.6	2369.5
27.5°	2306.9	2305.5	2301.4	2295.8
30°	2194.3	2193.0	2187.4	2187.4
32.5°	2048.4	2047.0	2041.5	2042.9
35°	1896.9	1902.5	1899.7	1894.2
37.5°	1770.5	1774.7	1777.5	1774.7
40°	1664.9	1677.4	1678.8	1681.6
42.5°	1552.3	1569.0	1574.6	1577.3
45°	1417.5	1432.8	1445.3	1442.5
47.5°	1279.9	1291.0	1302.1	1293.8
50°	1147.9	1154.8	1159.0	1159.0
52.5°	1022.8	1022.8	1021.4	1022.8
55°	879.7	879.7	874.1	876.9
57.5°	729.6	732.4	728.2	721.3
60°	590.6	583.7	580.9	576.7
62.5°	460.0	460.0	450.3	462.8
65°	344.7	340.5	336.3	334.9
67.5°	250.1	248.8	244.6	243.2
70°	176.5	170.9	169.5	166.8
72.5°	118.1	118.1	115.3	115.3
75°	72.3	65.3	63.9	65.3
77.5°	50.0	48.6	48.6	47.3
80°	33.4	32.0	34.8	30.6
82.5°	20.8	22.2	20.8	22.2
85°	13.9	16.7	15.3	15.3
87.5°	8.3	8.3	8.3	8.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)