

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: P246227

Luminaire Tested: **LSR8B50D010 EC8B50940 8LBDW0MW**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P246227  
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 8LBDW0MW  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
90 CRI 4000 CCT WITH MATTE WHITE TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4915.0 lumens  
Efficiency: N/A  
Efficacy: 92.7 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

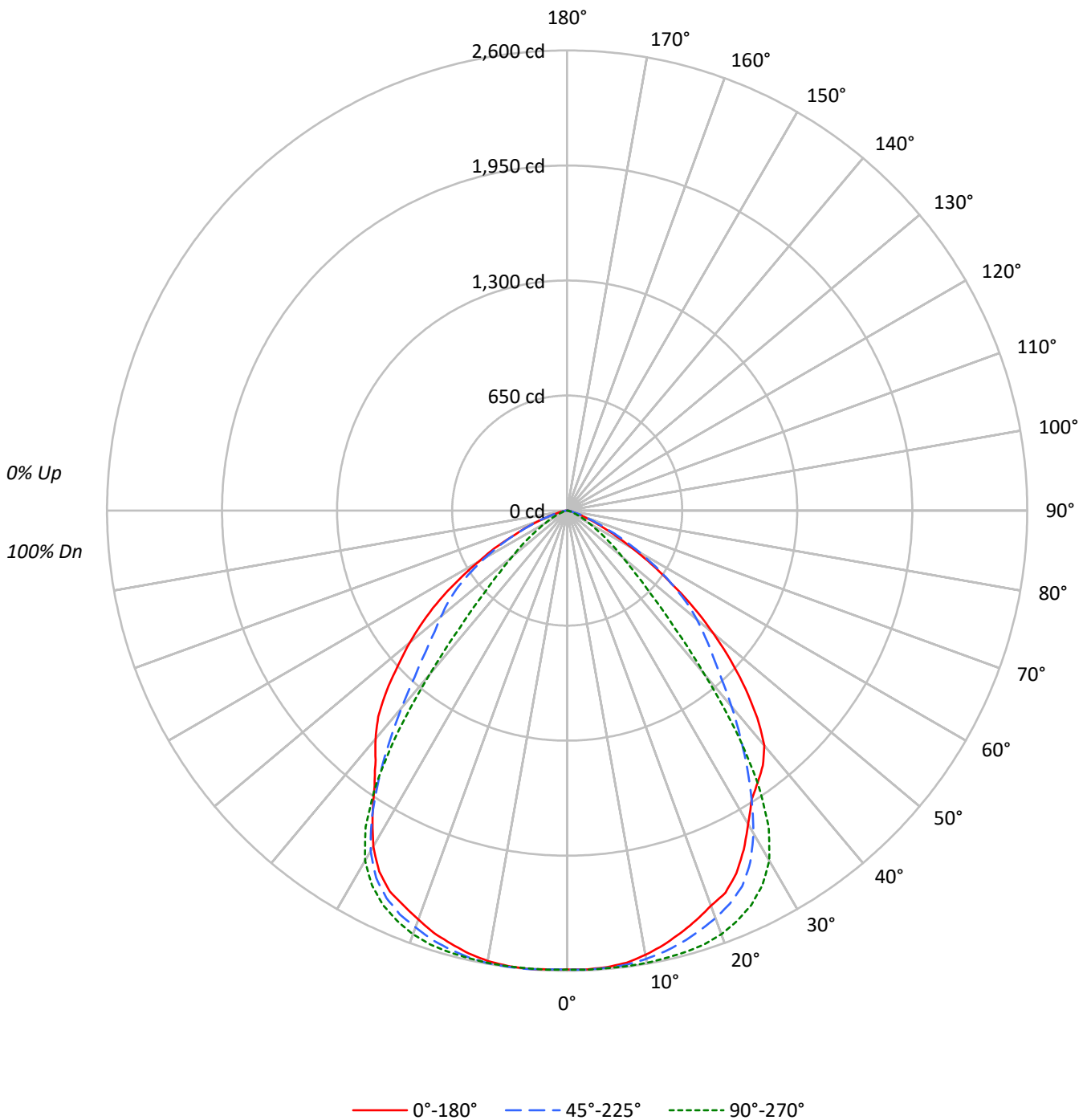
Input Watts (W): 53  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	90
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70
4	89	80	72	67	87	78	72	66	76	70	66	74	69	65	72	67	64	62
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	51	50
7	72	61	53	48	71	60	53	48	59	52	47	57	51	47	56	51	47	45
8	68	56	48	43	66	55	48	43	54	48	43	53	47	43	52	46	42	41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	79968	79968	79968
5°	80143	80357	80444
10°	79805	81242	80895
15°	78920	82431	80877
20°	77972	83590	80667
25°	76963	83686	80749
30°	72809	81333	78014
35°	70636	70688	71422
40°	69760	48635	67800
45°	62160	29196	63011
50°	51686	19434	55692
55°	38762	13397	47219
60°	26266	8930	35628
65°	15848	5793	24480
70°	8782	3138	15057
75°	3979	1322	7792
80°	3463	1474	5434
85°	3927	1981	5413



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	247.5	5.0
10°-20°	718.7	14.6
20°-30°	1090.9	22.2
30°-40°	1145.8	23.3
40°-50°	859.0	17.5
50°-60°	551.2	11.2
60°-70°	235.8	4.8
70°-80°	55.7	1.1
80°-90°	10.4	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°	2057.1	41.9
0°-40°	3202.9	65.2
0°-60°	4613.1	93.9
0°-90°	4915.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4915.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2593	2593	2593	2593	2593	
5°	2589	2593	2596	2600	2599	246
15°	2472	2524	2582	2565	2533	697
25°	2262	2341	2460	2415	2373	1033
35°	1876	1772	1878	1856	1897	1178
45°	1425	1165	670	1132	1445	1092
55°	721	721	249	752	878	654
65°	217	256	79	330	336	232
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°	2593.3	2593.3	2593.3	2593.3	2593.3	2593.3	2593.3	2593.3	2593.3	2593.3	2593.3
2.5°	2594.6	2597.4	2596.0	2596.0	2594.6	2596.0	2596.0	2598.8	2598.8	2596.0	2594.6
5°	2589.1	2591.9	2591.9	2589.1	2589.1	2596.0	2591.9	2594.6	2594.6	2593.3	2593.3
7.5°	2576.6	2576.6	2582.1	2578.0	2578.0	2582.1	2580.7	2583.5	2586.3	2587.7	2587.7
10°	2548.7	2551.5	2552.9	2552.9	2554.3	2558.4	2561.2	2566.8	2569.6	2572.4	2573.8
12.5°	2513.9	2518.1	2519.5	2518.1	2522.3	2527.8	2534.8	2541.8	2545.9	2551.5	2555.7
15°	2472.1	2472.1	2474.9	2479.1	2481.9	2490.3	2497.2	2505.5	2516.7	2523.7	2530.6
17.5°	2426.2	2429.0	2433.2	2433.2	2438.8	2452.7	2456.8	2469.4	2481.9	2488.9	2502.8
20°	2376.1	2378.9	2383.1	2385.9	2392.8	2403.9	2412.3	2423.4	2437.4	2449.9	2463.8
22.5°	2337.1	2331.6	2334.3	2337.1	2344.1	2353.8	2363.6	2377.5	2391.4	2403.9	2417.9
25°	2262.0	2263.4	2267.5	2270.3	2278.7	2287.0	2298.2	2314.8	2327.4	2341.3	2356.6
27.5°	2160.4	2161.8	2168.7	2168.7	2175.6	2189.6	2196.5	2210.5	2227.2	2241.1	2259.2
30°	2044.8	2047.6	2047.6	2053.2	2057.3	2064.3	2071.3	2085.2	2093.5	2106.1	2131.1
32.5°	1939.0	1941.8	1940.4	1939.0	1934.8	1933.5	1932.1	1934.8	1937.6	1941.8	1951.5
35°	1876.4	1869.4	1863.9	1854.1	1843.0	1829.1	1816.5	1799.8	1784.5	1772.0	1758.1
37.5°	1816.5	1815.1	1806.8	1792.9	1770.6	1745.5	1716.3	1680.1	1643.9	1604.9	1567.4
40°	1733.0	1728.8	1721.9	1702.4	1677.3	1646.7	1607.7	1563.2	1504.7	1444.9	1383.6
42.5°	1591.0	1592.4	1584.1	1568.7	1545.1	1515.8	1475.5	1426.8	1364.1	1293.1	1213.8
45°	1425.4	1425.4	1422.6	1410.1	1393.4	1369.7	1339.1	1298.7	1237.5	1165.1	1080.2
47.5°	1252.8	1254.2	1250.0	1247.2	1240.2	1224.9	1202.7	1172.1	1128.9	1059.3	974.4
50°	1077.4	1077.4	1084.3	1083.0	1083.0	1077.4	1067.7	1049.5	1012.0	956.3	877.0
52.5°	902.0	904.8	909.0	914.5	921.5	932.6	921.5	913.1	889.5	846.3	778.1
55°	721.0	723.8	730.8	740.5	748.9	760.0	762.8	762.8	750.3	721.0	669.5
57.5°	566.5	562.4	567.9	576.3	587.4	598.6	606.9	616.6	615.2	595.8	554.0
60°	425.9	427.3	431.5	439.9	448.2	458.0	469.1	477.4	481.6	471.9	445.4
62.5°	310.4	310.4	316.0	324.3	328.5	342.4	349.4	353.6	357.7	356.3	339.6
65°	217.2	219.9	222.7	226.9	231.1	239.4	243.6	251.9	254.7	256.1	243.6
67.5°	153.1	148.9	151.7	154.5	158.7	164.3	172.6	172.6	176.8	176.8	168.4
70°	97.4	97.4	98.8	103.0	105.8	107.2	110.0	112.7	116.9	115.5	115.5
72.5°	65.4	64.0	65.4	66.8	68.2	72.4	72.4	73.8	76.6	78.0	72.4
75°	33.4	34.8	37.6	36.2	40.4	37.6	39.0	43.2	41.8	39.0	39.0
77.5°	27.8	27.8	27.8	26.5	29.2	29.2	27.8	30.6	29.2	29.2	27.8
80°	19.5	20.9	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	5.6	5.6	5.6	4.2	5.6	5.6	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°	2593.3	2593.3	2593.3	2593.3	2593.3	2593.3	2593.3	2593.3	2593.3	2593.3	2593.3
2.5°	2597.4	2596.0	2598.8	2597.4	2597.4	2596.0	2597.4	2596.0	2598.8	2593.3	2594.6
5°	2597.4	2594.6	2596.0	2597.4	2598.8	2596.0	2596.0	2596.0	2598.8	2596.0	2597.4
7.5°	2591.9	2590.5	2594.6	2597.4	2596.0	2594.6	2597.4	2596.0	2598.8	2597.4	2600.2
10°	2580.7	2582.1	2584.9	2589.1	2590.5	2591.9	2594.6	2594.6	2598.8	2593.3	2596.0
12.5°	2564.0	2569.6	2576.6	2579.3	2584.9	2584.9	2587.7	2589.1	2591.9	2590.5	2594.6
15°	2543.1	2550.1	2558.4	2565.4	2572.4	2576.6	2580.7	2582.1	2586.3	2582.1	2583.5
17.5°	2518.1	2526.4	2539.0	2547.3	2558.4	2562.6	2568.2	2571.0	2575.2	2572.4	2573.8
20°	2483.3	2493.0	2506.9	2519.5	2526.4	2536.2	2543.1	2547.3	2550.1	2547.3	2548.7
22.5°	2434.6	2448.5	2466.6	2476.3	2490.3	2498.6	2500.0	2509.7	2516.7	2509.7	2512.5
25°	2377.5	2391.4	2405.3	2426.2	2438.8	2448.5	2458.2	2459.6	2466.6	2465.2	2463.8
27.5°	2282.8	2301.0	2324.6	2341.3	2358.0	2373.3	2384.5	2387.2	2394.2	2391.4	2392.8
30°	2153.4	2172.9	2195.2	2221.6	2245.3	2260.6	2274.5	2284.2	2291.2	2287.0	2285.6
32.5°	1969.7	1989.1	2012.8	2039.2	2067.1	2089.3	2106.1	2118.6	2126.9	2124.2	2117.2
35°	1759.5	1765.0	1780.4	1801.2	1824.9	1848.5	1863.9	1877.8	1887.5	1890.3	1890.3
37.5°	1543.7	1525.6	1514.5	1514.5	1528.4	1538.1	1552.1	1560.4	1575.7	1581.3	1585.5
40°	1334.9	1293.1	1254.2	1224.9	1205.5	1204.1	1204.1	1208.2	1222.2	1240.2	1257.0
42.5°	1148.4	1081.6	1021.7	967.4	928.5	906.2	896.4	897.8	909.0	925.7	953.5
45°	999.4	915.9	840.8	775.3	722.4	687.6	670.9	669.5	677.9	697.4	728.0
47.5°	883.9	794.8	709.9	634.7	577.7	540.1	520.6	515.0	520.6	538.7	574.9
50°	787.9	696.0	608.3	530.3	469.1	430.1	412.0	405.1	412.0	427.3	463.5
52.5°	698.8	604.1	522.0	446.8	381.4	348.0	328.5	324.3	328.5	346.6	375.8
55°	595.8	515.0	434.3	359.1	302.1	268.7	253.3	249.2	253.3	270.1	300.7
57.5°	494.2	424.6	353.6	285.4	236.6	207.4	193.5	187.9	197.6	208.8	245.0
60°	399.5	343.8	284.0	224.1	183.8	157.3	146.1	144.8	147.5	161.5	186.5
62.5°	313.2	267.3	219.9	171.2	137.8	126.7	112.7	111.4	114.1	122.5	142.0
65°	225.5	196.3	160.1	125.3	98.8	83.5	78.0	79.4	82.1	87.7	105.8
67.5°	157.3	136.4	111.4	87.7	68.2	61.2	55.7	54.3	55.7	65.4	75.2
70°	105.8	93.3	75.2	66.8	47.3	37.6	39.0	34.8	40.4	40.4	48.7
72.5°	69.6	61.2	50.1	39.0	33.4	26.5	26.5	25.1	27.8	29.2	36.2
75°	36.2	27.8	27.8	19.5	13.9	6.9	12.5	11.1	9.7	11.1	13.9
77.5°	25.1	20.9	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	5.6	5.6	5.6	5.6	5.6	8.3
85°	8.3	5.6	5.6	4.2	5.6	9.7	4.2	5.6	5.6	5.6	4.2
87.5°	2.8	4.2	4.2	4.2	2.8	1.4	2.8	4.2	4.2	6.9	5.6
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°	2593.3	2593.3	2593.3	2593.3	2593.3	2593.3	2593.3	2593.3	2593.3	2593.3	2593.3
2.5°	2597.4	2598.8	2598.8	2597.4	2597.4	2594.6	2600.2	2596.0	2597.4	2603.0	2598.8
5°	2600.2	2601.6	2601.6	2600.2	2600.2	2600.2	2601.6	2601.6	2600.2	2598.8	2601.6
7.5°	2605.8	2604.4	2604.4	2601.6	2601.6	2598.8	2601.6	2597.4	2600.2	2597.4	2601.6
10°	2598.8	2600.2	2598.8	2597.4	2597.4	2596.0	2596.0	2591.9	2593.3	2589.1	2591.9
12.5°	2594.6	2593.3	2593.3	2590.5	2587.7	2584.9	2583.5	2579.3	2579.3	2569.6	2573.8
15°	2583.5	2584.9	2580.7	2575.2	2572.4	2565.4	2562.6	2557.0	2551.5	2544.5	2545.9
17.5°	2573.8	2569.6	2564.0	2558.4	2547.3	2541.8	2536.2	2527.8	2525.0	2516.7	2513.9
20°	2544.5	2541.8	2534.8	2525.0	2518.1	2505.5	2500.0	2491.7	2484.7	2476.3	2472.1
22.5°	2506.9	2504.2	2495.8	2486.1	2474.9	2469.4	2463.8	2448.5	2441.5	2433.2	2431.8
25°	2459.6	2455.4	2447.1	2436.0	2430.4	2415.1	2409.5	2398.4	2395.6	2387.2	2385.9
27.5°	2387.2	2381.7	2371.9	2358.0	2348.3	2338.5	2333.0	2324.6	2321.8	2313.5	2312.1
30°	2278.7	2271.7	2252.2	2246.7	2229.9	2220.2	2220.2	2209.1	2210.5	2204.9	2204.9
32.5°	2107.5	2096.3	2081.0	2069.9	2058.7	2053.2	2053.2	2049.0	2051.8	2051.8	2054.6
35°	1880.6	1865.3	1856.9	1849.9	1849.9	1855.5	1872.2	1876.4	1884.7	1891.7	1897.3
37.5°	1589.6	1588.3	1598.0	1606.3	1627.2	1650.9	1680.1	1705.2	1728.8	1745.5	1762.2
40°	1275.0	1309.9	1337.7	1376.7	1408.7	1454.6	1507.5	1550.7	1591.0	1620.3	1650.9
42.5°	995.3	1039.8	1098.3	1155.3	1212.4	1275.0	1344.7	1404.5	1457.4	1497.8	1529.8
45°	775.3	836.6	907.6	980.0	1053.7	1131.7	1204.1	1265.3	1321.0	1362.8	1394.8
47.5°	625.0	691.8	772.5	851.9	935.4	1017.5	1098.3	1151.2	1197.1	1230.5	1259.8
50°	516.4	587.4	672.3	762.8	846.3	928.5	998.0	1049.5	1087.1	1116.4	1134.5
52.5°	431.5	506.7	597.2	687.6	771.1	846.3	909.0	947.9	978.6	999.4	1016.1
55°	356.3	428.7	513.6	598.6	680.7	751.7	803.2	832.4	856.1	868.6	878.3
57.5°	290.9	357.7	435.7	513.6	584.6	643.1	683.5	712.7	723.8	733.6	732.2
60°	228.3	290.9	361.9	428.7	490.0	537.3	566.5	583.2	591.6	595.8	593.0
62.5°	179.6	236.6	290.9	349.4	393.9	434.3	462.2	462.2	466.3	467.7	471.9
65°	133.6	176.8	224.1	267.3	303.4	329.9	345.2	349.4	355.0	353.6	350.8
67.5°	98.8	130.9	165.6	197.6	222.7	239.4	250.5	260.3	258.9	256.1	254.7
70°	68.2	89.1	119.7	139.2	157.3	174.0	176.8	178.2	179.6	181.0	178.2
72.5°	47.3	62.6	79.4	96.0	107.2	114.1	121.1	122.5	122.5	122.5	121.1
75°	23.7	32.0	47.3	54.3	64.0	66.8	72.4	72.4	76.6	71.0	69.6
77.5°	20.9	25.1	33.4	39.0	43.2	47.3	48.7	52.9	51.5	48.7	50.1
80°	12.5	15.3	20.9	23.7	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	20.9	20.9	20.9
85°	5.6	9.7	8.3	16.7	11.1	11.1	13.9	16.7	13.9	13.9	16.7
87.5°	5.6	5.6	4.2	5.6	5.6	5.6	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: P246227

CATALOG NUMBER: LSR8B50D010 EC8B50940 8LBDW0MW

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	2593.3	2593.3	2593.3	2593.3
2.5°	2597.4	2600.2	2596.0	2594.6
5°	2601.6	2601.6	2598.8	2598.8
7.5°	2601.6	2601.6	2597.4	2594.6
10°	2590.5	2590.5	2586.3	2583.5
12.5°	2569.6	2569.6	2568.2	2564.0
15°	2543.1	2543.1	2537.6	2533.4
17.5°	2506.9	2509.7	2502.8	2502.8
20°	2468.0	2466.6	2461.0	2458.2
22.5°	2427.6	2424.8	2423.4	2415.1
25°	2384.5	2381.7	2377.5	2373.3
27.5°	2310.7	2309.3	2305.1	2299.6
30°	2197.9	2196.5	2191.0	2191.0
32.5°	2051.8	2050.4	2044.8	2046.2
35°	1900.0	1905.6	1902.8	1897.3
37.5°	1773.4	1777.6	1780.4	1777.6
40°	1667.6	1680.1	1681.5	1684.3
42.5°	1554.8	1571.5	1577.1	1579.9
45°	1419.8	1435.1	1447.7	1444.9
47.5°	1282.0	1293.1	1304.3	1295.9
50°	1149.8	1156.7	1160.9	1160.9
52.5°	1024.5	1024.5	1023.1	1024.5
55°	881.1	881.1	875.6	878.3
57.5°	730.8	733.6	729.4	722.4
60°	591.6	584.6	581.8	577.7
62.5°	460.8	460.8	451.0	463.5
65°	345.2	341.0	336.8	335.5
67.5°	250.5	249.2	245.0	243.6
70°	176.8	171.2	169.8	167.0
72.5°	118.3	118.3	115.5	115.5
75°	72.4	65.4	64.0	65.4
77.5°	50.1	48.7	48.7	47.3
80°	33.4	32.0	34.8	30.6
82.5°	20.9	22.3	20.9	22.3
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)