

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: P249479

Luminaire Tested: **LSR8B70D010 EC8B70940 8LBDW0B**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249479  
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: LSR8B70D010 EC8B70940 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: 6016.0 lumens  
Efficiency: N/A  
Efficacy: 79.3 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

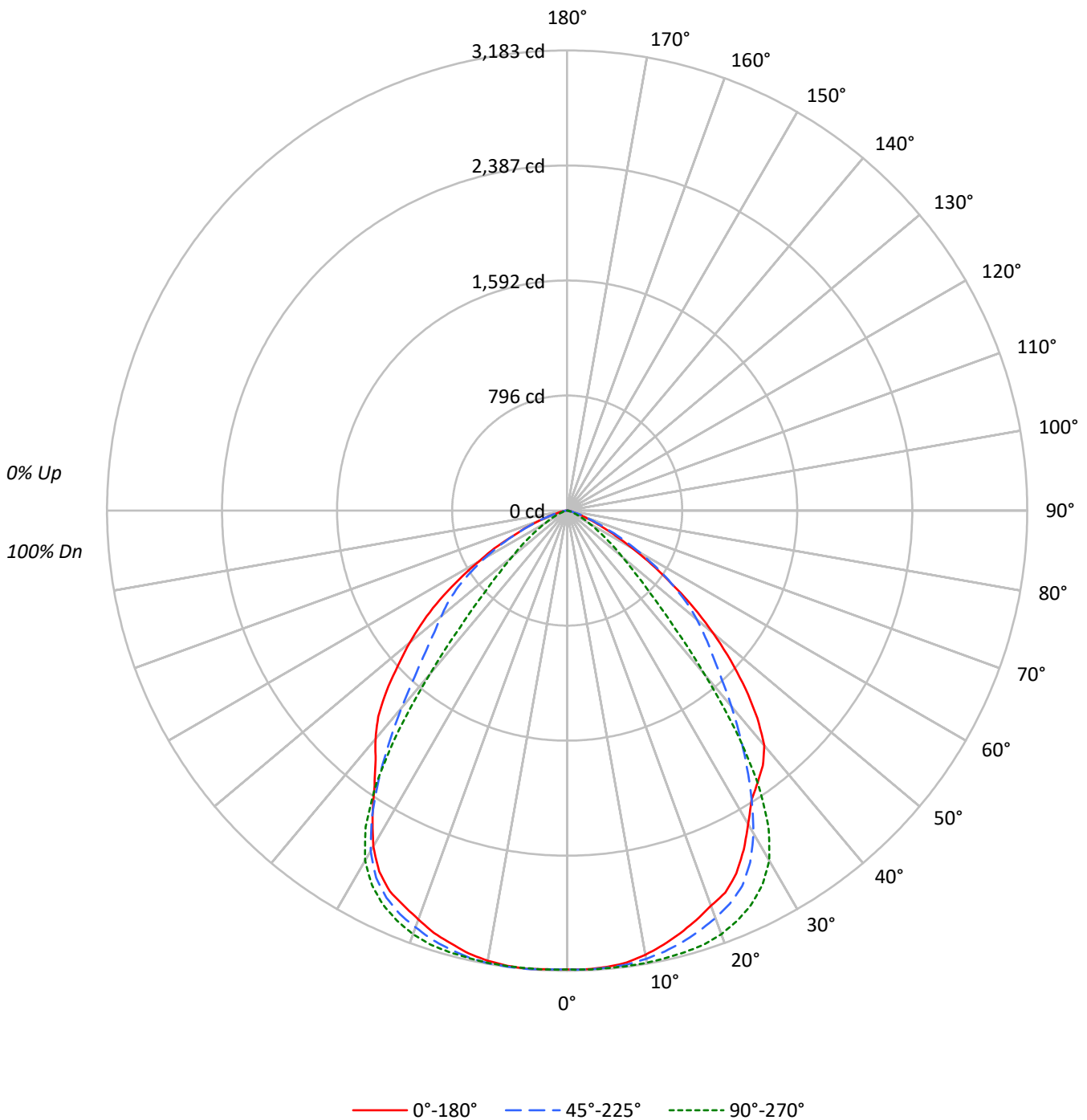
Input Watts (W): 75.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	97881	97881	97881
5°	98094	98360	98465
10°	97681	99444	99015
15°	96599	100896	98993
20°	95440	102315	98738
25°	94203	102433	98840
30°	89120	99553	95490
35°	86457	86521	87421
40°	85387	59532	82988
45°	76085	35738	77123
50°	63262	23785	68169
55°	47450	16397	57799
60°	32156	10928	43609
65°	19394	7085	29959
70°	10756	3841	18429
75°	4873	1620	9543
80°	4226	1811	6659
85°	4812	2406	6652



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	302.9	5.0
10°-20°	879.7	14.6
20°-30°	1335.3	22.2
30°-40°	1402.5	23.3
40°-50°	1051.5	17.5
50°-60°	674.6	11.2
60°-70°	288.6	4.8
70°-80°	68.2	1.1
80°-90°	12.7	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°	2518.0	41.9
0°-40°	3920.4	65.2
0°-60°	5646.5	93.9
0°-90°	6016.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6016.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3174	3174	3174	3174	3174	
5°	3169	3174	3178	3183	3181	301
15°	3026	3089	3160	3140	3101	853
25°	2769	2866	3011	2956	2905	1265
35°	2297	2169	2298	2271	2322	1441
45°	1745	1426	820	1385	1768	1336
55°	883	883	305	920	1075	801
65°	266	314	97	404	411	284
75°	41	48	14	82	80	60
85°	14	8	7	14	19	14
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°	3174.2	3174.2	3174.2	3174.2	3174.2	3174.2	3174.2	3174.2	3174.2	3174.2	3174.2
2.5°	3175.9	3179.3	3177.6	3177.6	3175.9	3177.6	3177.6	3181.0	3181.0	3177.6	3175.9
5°	3169.0	3172.5	3172.5	3169.0	3169.0	3177.6	3172.5	3175.9	3175.9	3174.2	3174.2
7.5°	3153.7	3153.7	3160.5	3155.4	3155.4	3160.5	3158.8	3162.2	3165.7	3167.4	3167.4
10°	3119.6	3123.0	3124.8	3124.8	3126.5	3131.6	3135.0	3141.8	3145.2	3148.6	3150.3
12.5°	3077.1	3082.2	3083.9	3082.2	3087.3	3094.1	3102.6	3111.1	3116.3	3123.0	3128.2
15°	3025.9	3025.9	3029.3	3034.5	3037.9	3048.1	3056.6	3066.8	3080.4	3089.0	3097.5
17.5°	2969.7	2973.1	2978.2	2978.2	2985.1	3002.1	3007.2	3022.5	3037.9	3046.4	3063.4
20°	2908.4	2911.8	2916.9	2920.3	2928.8	2942.5	2952.7	2966.3	2983.3	2998.7	3015.7
22.5°	2860.7	2853.9	2857.2	2860.7	2869.2	2881.1	2893.1	2910.1	2927.1	2942.5	2959.5
25°	2768.7	2770.4	2775.5	2778.9	2789.1	2799.3	2813.0	2833.4	2848.7	2865.8	2884.5
27.5°	2644.3	2646.0	2654.5	2654.5	2663.0	2680.1	2688.6	2705.6	2726.1	2743.1	2765.3
30°	2502.9	2506.3	2506.3	2513.1	2518.2	2526.7	2535.2	2552.3	2562.5	2577.8	2608.5
32.5°	2373.4	2376.8	2375.1	2373.4	2368.3	2366.6	2364.9	2368.3	2371.7	2376.8	2388.7
35°	2296.7	2288.2	2281.4	2269.5	2255.8	2238.8	2223.4	2203.0	2184.3	2168.9	2151.9
37.5°	2223.4	2221.7	2211.5	2194.5	2167.2	2136.6	2100.8	2056.5	2012.2	1964.5	1918.5
40°	2121.2	2116.1	2107.6	2083.7	2053.1	2015.6	1967.9	1913.4	1841.8	1768.5	1693.6
42.5°	1947.4	1949.1	1938.9	1920.2	1891.2	1855.4	1806.0	1746.4	1669.7	1582.8	1485.7
45°	1744.7	1744.7	1741.3	1725.9	1705.5	1676.5	1639.0	1589.6	1514.7	1426.1	1322.1
47.5°	1533.4	1535.1	1530.0	1526.6	1518.1	1499.3	1472.1	1434.6	1381.8	1296.6	1192.6
50°	1318.7	1318.7	1327.3	1325.5	1325.5	1318.7	1306.8	1284.6	1238.7	1170.5	1073.4
52.5°	1104.1	1107.5	1112.6	1119.4	1127.9	1141.5	1127.9	1117.7	1088.7	1035.9	952.4
55°	882.6	886.0	894.5	906.4	916.7	930.3	933.7	933.7	918.3	882.6	819.5
57.5°	693.5	688.3	695.2	705.4	719.0	732.6	742.9	754.8	753.1	729.2	678.1
60°	521.4	523.1	528.2	538.4	548.6	560.6	574.2	584.4	589.5	577.6	545.2
62.5°	380.0	380.0	386.7	397.0	402.1	419.1	427.6	432.8	437.9	436.2	415.7
65°	265.8	269.2	272.6	277.7	282.8	293.0	298.2	308.4	311.8	313.5	298.2
67.5°	187.4	182.3	185.7	189.1	194.2	201.1	211.3	211.3	216.4	216.4	206.2
70°	119.3	119.3	121.0	126.1	129.5	131.2	134.6	138.0	143.1	141.4	141.4
72.5°	80.1	78.4	80.1	81.8	83.5	88.6	88.6	90.3	93.7	95.4	88.6
75°	40.9	42.6	46.0	44.3	49.4	46.0	47.7	52.8	51.1	47.7	47.7
77.5°	34.1	34.1	34.1	32.4	35.8	35.8	34.1	37.5	35.8	35.8	34.1
80°	23.8	25.6	23.8	22.1	23.8	22.1	22.1	22.1	22.1	22.1	20.4
82.5°	18.8	15.3	17.1	15.3	17.1	17.1	15.3	13.6	13.6	15.3	13.6
85°	13.6	10.2	11.9	11.9	10.2	10.2	10.2	10.2	10.2	8.5	8.5
87.5°	8.5	5.1	5.1	5.1	6.8	6.8	6.8	5.1	6.8	6.8	3.4
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°	3174.2	3174.2	3174.2	3174.2	3174.2	3174.2	3174.2	3174.2	3174.2	3174.2	3174.2
2.5°	3179.3	3177.6	3181.0	3179.3	3179.3	3177.6	3179.3	3177.6	3181.0	3174.2	3175.9
5°	3179.3	3175.9	3177.6	3179.3	3181.0	3177.6	3177.6	3177.6	3181.0	3177.6	3179.3
7.5°	3172.5	3170.7	3175.9	3179.3	3177.6	3175.9	3179.3	3177.6	3181.0	3179.3	3182.7
10°	3158.8	3160.5	3163.9	3169.0	3170.7	3172.5	3175.9	3175.9	3181.0	3174.2	3177.6
12.5°	3138.4	3145.2	3153.7	3157.1	3163.9	3163.9	3167.4	3169.0	3172.5	3170.7	3175.9
15°	3112.8	3121.3	3131.6	3140.1	3148.6	3153.7	3158.8	3160.5	3165.7	3160.5	3162.2
17.5°	3082.2	3092.4	3107.7	3117.9	3131.6	3136.7	3143.5	3146.9	3152.0	3148.6	3150.3
20°	3039.5	3051.5	3068.5	3083.9	3092.4	3104.3	3112.8	3117.9	3121.3	3117.9	3119.6
22.5°	2979.9	2997.0	3019.1	3031.0	3048.1	3058.3	3060.0	3071.9	3080.4	3071.9	3075.4
25°	2910.1	2927.1	2944.2	2969.7	2985.1	2997.0	3008.9	3010.6	3019.1	3017.4	3015.7
27.5°	2794.2	2816.4	2845.3	2865.8	2886.2	2905.0	2918.6	2922.0	2930.5	2927.1	2928.8
30°	2635.7	2659.6	2686.9	2719.2	2748.2	2766.9	2784.0	2795.9	2804.4	2799.3	2797.6
32.5°	2410.9	2434.7	2463.7	2496.0	2530.1	2557.4	2577.8	2593.2	2603.4	2600.0	2591.5
35°	2153.6	2160.4	2179.2	2204.7	2233.7	2262.6	2281.4	2298.4	2310.3	2313.7	2313.7
37.5°	1889.5	1867.4	1853.7	1853.7	1870.8	1882.7	1899.7	1909.9	1928.7	1935.5	1940.6
40°	1633.9	1582.8	1535.1	1499.3	1475.5	1473.8	1473.8	1478.9	1495.9	1518.1	1538.5
42.5°	1405.6	1323.8	1250.6	1184.1	1136.4	1109.2	1097.3	1099.0	1112.6	1133.0	1167.1
45°	1223.3	1121.1	1029.1	949.0	884.3	841.7	821.2	819.5	829.7	853.6	891.1
47.5°	1081.9	972.9	868.9	776.9	707.1	661.1	637.2	630.4	637.2	659.4	703.7
50°	964.4	851.9	744.6	649.1	574.2	526.5	504.3	495.8	504.3	523.1	567.3
52.5°	855.3	739.4	638.9	546.9	466.8	425.9	402.1	397.0	402.1	424.2	460.0
55°	729.2	630.4	531.6	439.6	369.7	328.8	310.1	305.0	310.1	330.6	368.0
57.5°	604.9	519.7	432.8	349.3	289.7	253.8	236.8	230.0	241.9	255.6	299.9
60°	489.0	420.8	347.6	274.3	224.9	192.5	178.9	177.2	180.6	197.6	228.3
62.5°	383.4	327.1	269.2	209.6	168.7	155.0	138.0	136.3	139.7	149.9	173.8
65°	276.0	240.3	195.9	153.3	121.0	102.2	95.4	97.1	100.5	107.3	129.5
67.5°	192.5	167.0	136.3	107.3	83.5	75.0	68.2	66.5	68.2	80.1	92.0
70°	129.5	114.1	92.0	81.8	57.9	46.0	47.7	42.6	49.4	49.4	59.6
72.5°	85.2	75.0	61.3	47.7	40.9	32.4	32.4	30.7	34.1	35.8	44.3
75°	44.3	34.1	34.1	23.8	17.1	8.5	15.3	13.6	11.9	13.6	17.1
77.5°	30.7	25.6	23.8	18.8	17.1	13.6	13.6	13.6	13.6	15.3	17.1
80°	18.8	18.8	13.6	11.9	10.2	8.5	10.2	10.2	10.2	10.2	11.9
82.5°	11.9	10.2	10.2	8.5	8.5	6.8	6.8	6.8	6.8	6.8	10.2
85°	10.2	6.8	6.8	5.1	6.8	11.9	5.1	6.8	6.8	6.8	5.1
87.5°	3.4	5.1	5.1	5.1	3.4	1.7	3.4	5.1	5.1	8.5	6.8
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°	3174.2	3174.2	3174.2	3174.2	3174.2	3174.2	3174.2	3174.2	3174.2	3174.2	3174.2
2.5°	3179.3	3181.0	3181.0	3179.3	3179.3	3175.9	3182.7	3177.6	3179.3	3186.1	3181.0
5°	3182.7	3184.4	3184.4	3182.7	3182.7	3182.7	3184.4	3184.4	3182.7	3181.0	3184.4
7.5°	3189.5	3187.8	3187.8	3184.4	3184.4	3181.0	3184.4	3179.3	3182.7	3179.3	3184.4
10°	3181.0	3182.7	3181.0	3179.3	3179.3	3177.6	3177.6	3172.5	3174.2	3169.0	3172.5
12.5°	3175.9	3174.2	3174.2	3170.7	3167.4	3163.9	3162.2	3157.1	3157.1	3145.2	3150.3
15°	3162.2	3163.9	3158.8	3152.0	3148.6	3140.1	3136.7	3129.8	3123.0	3114.5	3116.3
17.5°	3150.3	3145.2	3138.4	3131.6	3117.9	3111.1	3104.3	3094.1	3090.7	3080.4	3077.1
20°	3114.5	3111.1	3102.6	3090.7	3082.2	3066.8	3060.0	3049.8	3041.3	3031.0	3025.9
22.5°	3068.5	3065.1	3054.9	3043.0	3029.3	3022.5	3015.7	2997.0	2988.4	2978.2	2976.5
25°	3010.6	3005.5	2995.3	2981.6	2974.8	2956.1	2949.2	2935.6	2932.2	2922.0	2920.3
27.5°	2922.0	2915.2	2903.3	2886.2	2874.3	2862.4	2855.6	2845.3	2841.9	2831.7	2830.0
30°	2789.1	2780.6	2756.7	2749.9	2729.5	2717.5	2717.5	2703.9	2705.6	2698.8	2698.8
32.5°	2579.5	2565.9	2547.2	2533.5	2519.9	2513.1	2513.1	2508.0	2511.4	2511.4	2514.8
35°	2301.8	2283.1	2272.8	2264.3	2264.3	2271.1	2291.6	2296.7	2306.9	2315.4	2322.3
37.5°	1945.7	1944.0	1956.0	1966.2	1991.7	2020.7	2056.5	2087.2	2116.1	2136.6	2157.0
40°	1560.7	1603.3	1637.3	1685.1	1724.2	1780.5	1845.2	1898.0	1947.4	1983.2	2020.7
42.5°	1218.2	1272.7	1344.3	1414.1	1484.0	1560.7	1645.9	1719.1	1783.9	1833.3	1872.5
45°	949.0	1024.0	1110.9	1199.5	1289.8	1385.2	1473.8	1548.7	1616.9	1668.0	1707.2
47.5°	765.0	846.8	945.6	1042.7	1144.9	1245.5	1344.3	1409.0	1465.2	1506.1	1542.0
50°	632.1	719.0	822.9	933.7	1035.9	1136.4	1221.6	1284.6	1330.7	1366.4	1388.6
52.5°	528.2	620.2	730.9	841.7	943.9	1035.9	1112.6	1160.3	1197.8	1223.3	1243.8
55°	436.2	524.8	628.7	732.6	833.2	920.0	983.1	1018.9	1047.8	1063.2	1075.1
57.5°	356.1	437.9	533.3	628.7	715.6	787.2	836.6	872.3	886.0	897.9	896.2
60°	279.4	356.1	443.0	524.8	599.7	657.6	693.5	713.9	724.1	729.2	725.8
62.5°	219.8	289.7	356.1	427.6	482.2	531.6	565.7	565.7	570.8	572.5	577.6
65°	163.5	216.4	274.3	327.1	371.4	403.8	422.6	427.6	434.5	432.8	429.4
67.5°	121.0	160.2	202.7	241.9	272.6	293.0	306.7	318.6	316.9	313.5	311.8
70°	83.5	109.1	146.5	170.4	192.5	213.0	216.4	218.1	219.8	221.5	218.1
72.5°	57.9	76.7	97.1	117.6	131.2	139.7	148.2	149.9	149.9	149.9	148.2
75°	29.0	39.2	57.9	66.5	78.4	81.8	88.6	88.6	93.7	86.9	85.2
77.5°	25.6	30.7	40.9	47.7	52.8	57.9	59.6	64.7	63.0	59.6	61.3
80°	15.3	18.8	25.6	29.0	35.8	37.5	39.2	40.9	39.2	40.9	40.9
82.5°	11.9	13.6	17.1	17.1	22.1	22.1	23.8	23.8	25.6	25.6	25.6
85°	6.8	11.9	10.2	20.4	13.6	13.6	17.1	20.4	17.1	17.1	20.4
87.5°	6.8	6.8	5.1	6.8	6.8	6.8	8.5	10.2	10.2	11.9	10.2
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: P249479

CATALOG NUMBER: LSR8B70D010 EC8B70940 8LBDW0B

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	3174.2	3174.2	3174.2	3174.2
2.5°	3179.3	3182.7	3177.6	3175.9
5°	3184.4	3184.4	3181.0	3181.0
7.5°	3184.4	3184.4	3179.3	3175.9
10°	3170.7	3170.7	3165.7	3162.2
12.5°	3145.2	3145.2	3143.5	3138.4
15°	3112.8	3112.8	3106.0	3100.9
17.5°	3068.5	3071.9	3063.4	3063.4
20°	3020.8	3019.1	3012.3	3008.9
22.5°	2971.4	2968.0	2966.3	2956.1
25°	2918.6	2915.2	2910.1	2905.0
27.5°	2828.3	2826.6	2821.5	2814.7
30°	2690.3	2688.6	2681.8	2681.8
32.5°	2511.4	2509.7	2502.9	2504.6
35°	2325.7	2332.5	2329.1	2322.3
37.5°	2170.6	2175.7	2179.2	2175.7
40°	2041.1	2056.5	2058.2	2061.6
42.5°	1903.1	1923.6	1930.4	1933.8
45°	1737.8	1756.6	1771.9	1768.5
47.5°	1569.2	1582.8	1596.4	1586.2
50°	1407.3	1415.8	1421.0	1421.0
52.5°	1254.0	1254.0	1252.3	1254.0
55°	1078.5	1078.5	1071.7	1075.1
57.5°	894.5	897.9	892.8	884.3
60°	724.1	715.6	712.2	707.1
62.5°	564.0	564.0	552.0	567.3
65°	422.6	417.4	412.3	410.6
67.5°	306.7	305.0	299.9	298.2
70°	216.4	209.6	207.9	204.4
72.5°	144.8	144.8	141.4	141.4
75°	88.6	80.1	78.4	80.1
77.5°	61.3	59.6	59.6	57.9
80°	40.9	39.2	42.6	37.5
82.5°	25.6	27.3	25.6	27.3
85°	17.1	20.4	18.8	18.8
87.5°	10.2	10.2	10.2	10.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)