

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: P249587

Luminaire Tested: **LSR8B70D010 EC8B70940 8LBDW0MW**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249587  
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 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: 6722.0 lumens  
Efficiency: N/A  
Efficacy: 88.6 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

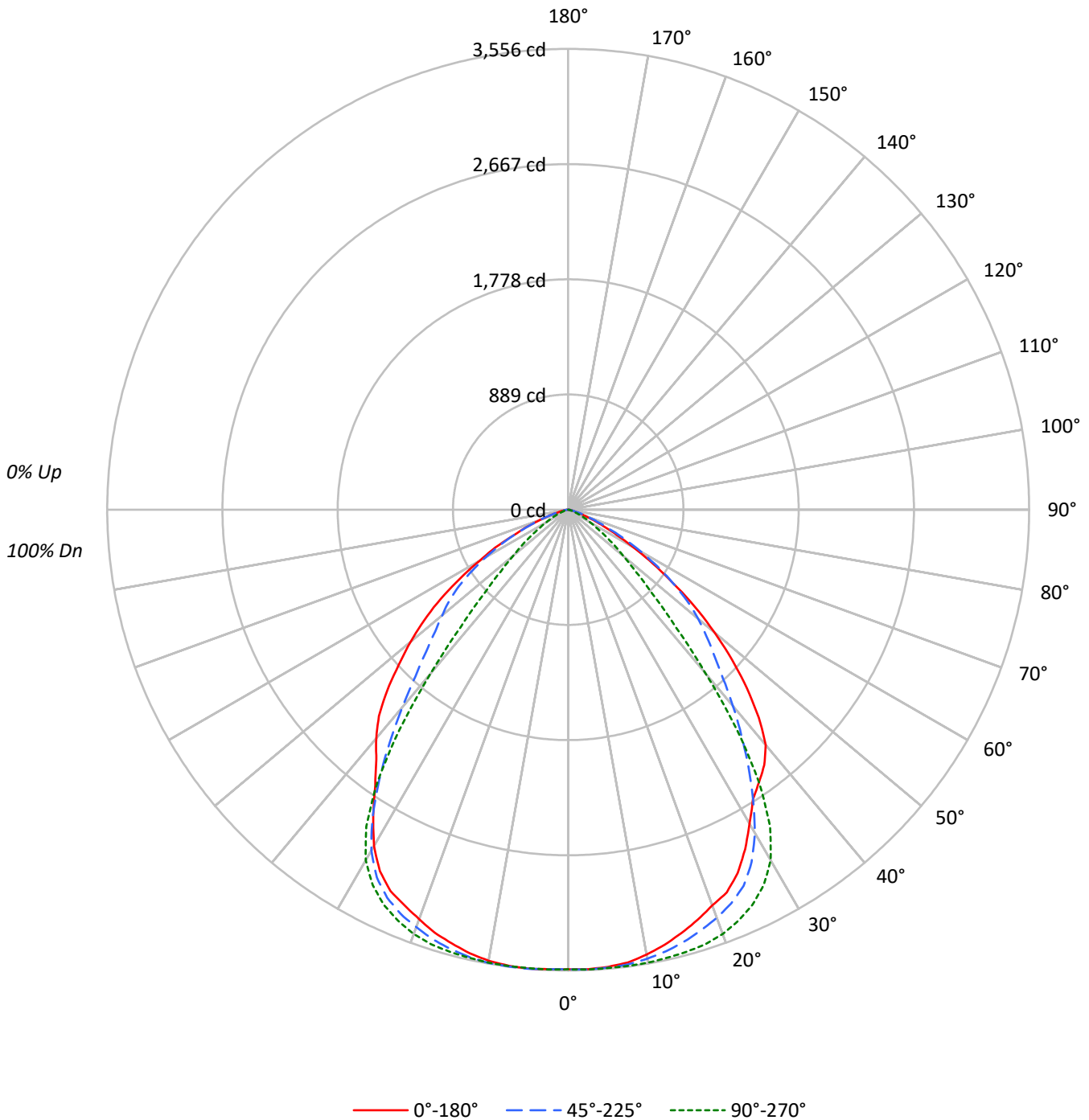
Input Watts (W): 75.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	109367	109367	109367
5°	109605	109903	110020
10°	109144	111114	110635
15°	107935	112737	110611
20°	106640	114322	110325
25°	105257	114454	110439
30°	99578	111235	106696
35°	96606	96674	97679
40°	95410	66516	92725
45°	85012	39933	86176
50°	70688	26577	76166
55°	53014	18322	64578
60°	35924	12211	48728
65°	21671	7917	33476
70°	12018	4292	20592
75°	5445	1811	10663
80°	4724	2024	7441
85°	5378	2689	7430



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	338.5	5.0
10°-20°	983.0	14.6
20°-30°	1492.0	22.2
30°-40°	1567.0	23.3
40°-50°	1174.9	17.5
50°-60°	753.8	11.2
60°-70°	322.5	4.8
70°-80°	76.2	1.1
80°-90°	14.2	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°	2813.5	41.9
0°-40°	4380.5	65.2
0°-60°	6309.2	93.9
0°-90°	6722.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6722.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3547	3547	3547	3547	3547	
5°	3541	3547	3550	3556	3554	336
15°	3381	3452	3531	3509	3465	954
25°	3094	3202	3364	3303	3246	1413
35°	2566	2423	2568	2538	2595	1611
45°	1949	1593	916	1548	1976	1493
55°	986	986	341	1028	1201	894
65°	297	350	108	451	459	317
75°	46	53	15	91	90	67
85°	15	10	8	15	21	16
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°	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7
2.5°	3548.6	3552.4	3550.5	3550.5	3548.6	3550.5	3550.5	3554.3	3554.3	3550.5	3548.6
5°	3540.9	3544.7	3544.7	3540.9	3540.9	3550.5	3544.7	3548.6	3548.6	3546.7	3546.7
7.5°	3523.8	3523.8	3531.4	3525.7	3525.7	3531.4	3529.5	3533.3	3537.2	3539.1	3539.1
10°	3485.7	3489.6	3491.5	3491.5	3493.4	3499.1	3502.9	3510.5	3514.3	3518.1	3520.0
12.5°	3438.2	3443.9	3445.8	3443.9	3449.6	3457.2	3466.7	3476.2	3482.0	3489.6	3495.3
15°	3381.0	3381.0	3384.8	3390.6	3394.4	3405.8	3415.3	3426.7	3441.9	3451.5	3461.0
17.5°	3318.2	3322.0	3327.7	3327.7	3335.4	3354.4	3360.1	3377.2	3394.4	3403.9	3422.9
20°	3249.7	3253.5	3259.2	3263.0	3272.5	3287.8	3299.2	3314.4	3333.5	3350.6	3369.6
22.5°	3196.4	3188.8	3192.5	3196.4	3205.9	3219.2	3232.6	3251.6	3270.6	3287.8	3306.8
25°	3093.6	3095.5	3101.2	3105.0	3116.4	3127.8	3143.1	3165.9	3183.0	3202.1	3223.0
27.5°	2954.6	2956.5	2966.0	2966.0	2975.5	2994.6	3004.1	3023.1	3046.0	3065.0	3089.8
30°	2796.6	2800.4	2800.4	2808.0	2813.7	2823.3	2832.8	2851.8	2863.2	2880.4	2914.6
32.5°	2651.9	2655.7	2653.8	2651.9	2646.2	2644.3	2642.4	2646.2	2650.0	2655.7	2669.0
35°	2566.3	2556.7	2549.1	2535.8	2520.6	2501.5	2484.4	2461.5	2440.6	2423.4	2404.4
37.5°	2484.4	2482.5	2471.0	2452.0	2421.5	2387.3	2347.3	2297.8	2248.3	2195.0	2143.6
40°	2370.2	2364.4	2354.9	2328.3	2294.0	2252.1	2198.8	2137.9	2057.9	1976.1	1892.3
42.5°	2176.0	2177.9	2166.5	2145.5	2113.2	2073.2	2018.0	1951.3	1865.7	1768.6	1660.1
45°	1949.4	1949.4	1945.6	1928.5	1905.6	1873.3	1831.4	1776.2	1692.4	1593.4	1477.3
47.5°	1713.4	1715.3	1709.5	1705.8	1696.2	1675.3	1644.8	1603.0	1543.9	1448.7	1332.6
50°	1473.5	1473.5	1483.0	1481.1	1481.1	1473.5	1460.2	1435.4	1384.0	1307.9	1199.4
52.5°	1233.6	1237.4	1243.2	1250.8	1260.3	1275.5	1260.3	1248.8	1216.5	1157.5	1064.2
55°	986.1	989.9	999.5	1012.8	1024.2	1039.5	1043.2	1043.2	1026.1	986.1	915.7
57.5°	774.8	769.1	776.7	788.2	803.4	818.6	830.0	843.4	841.4	814.8	757.7
60°	582.5	584.5	590.1	601.6	613.0	626.3	641.6	653.0	658.7	645.4	609.2
62.5°	424.5	424.5	432.1	443.5	449.3	468.3	477.8	483.6	489.2	487.3	464.5
65°	297.0	300.8	304.6	310.3	316.0	327.4	333.2	344.6	348.4	350.3	333.2
67.5°	209.4	203.7	207.5	211.3	217.0	224.7	236.1	236.1	241.8	241.8	230.3
70°	133.3	133.3	135.2	140.9	144.7	146.6	150.4	154.2	159.9	158.0	158.0
72.5°	89.5	87.6	89.5	91.4	93.3	99.0	99.0	100.9	104.7	106.6	99.0
75°	45.7	47.6	51.4	49.5	55.2	51.4	53.3	59.0	57.1	53.3	53.3
77.5°	38.1	38.1	38.1	36.2	40.0	40.0	38.1	41.9	40.0	40.0	38.1
80°	26.6	28.6	26.6	24.7	26.6	24.7	24.7	24.7	24.7	24.7	22.8
82.5°	21.0	17.1	19.1	17.1	19.1	19.1	17.1	15.2	15.2	17.1	15.2
85°	15.2	11.4	13.3	13.3	11.4	11.4	11.4	11.4	11.4	9.5	9.5
87.5°	9.5	5.7	5.7	5.7	7.6	7.6	7.6	5.7	7.6	7.6	3.8
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°	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7
2.5°	3552.4	3550.5	3554.3	3552.4	3552.4	3550.5	3552.4	3550.5	3554.3	3546.7	3548.6
5°	3552.4	3548.6	3550.5	3552.4	3554.3	3550.5	3550.5	3550.5	3554.3	3550.5	3552.4
7.5°	3544.7	3542.8	3548.6	3552.4	3550.5	3548.6	3552.4	3550.5	3554.3	3552.4	3556.2
10°	3529.5	3531.4	3535.2	3540.9	3542.8	3544.7	3548.6	3548.6	3554.3	3546.7	3550.5
12.5°	3506.7	3514.3	3523.8	3527.6	3535.2	3535.2	3539.1	3540.9	3544.7	3542.8	3548.6
15°	3478.1	3487.6	3499.1	3508.6	3518.1	3523.8	3529.5	3531.4	3537.2	3531.4	3533.3
17.5°	3443.9	3455.3	3472.4	3483.8	3499.1	3504.8	3512.4	3516.2	3521.9	3518.1	3520.0
20°	3396.2	3409.6	3428.6	3445.8	3455.3	3468.6	3478.1	3483.8	3487.6	3483.8	3485.7
22.5°	3329.6	3348.7	3373.4	3386.7	3405.8	3417.2	3419.1	3432.4	3441.9	3432.4	3436.3
25°	3251.6	3270.6	3289.7	3318.2	3335.4	3348.7	3362.0	3363.9	3373.4	3371.5	3369.6
27.5°	3122.1	3146.9	3179.2	3202.1	3224.9	3245.9	3261.1	3264.9	3274.4	3270.6	3272.5
30°	2945.1	2971.8	3002.2	3038.4	3070.7	3091.7	3110.7	3124.0	3133.5	3127.8	3125.9
32.5°	2693.8	2720.4	2752.8	2789.0	2827.1	2857.5	2880.4	2897.5	2908.9	2905.1	2895.6
35°	2406.3	2413.9	2434.9	2463.5	2495.8	2528.2	2549.1	2568.1	2581.4	2585.3	2585.3
37.5°	2111.3	2086.5	2071.3	2071.3	2090.3	2103.6	2122.7	2134.1	2155.0	2162.6	2168.4
40°	1825.7	1768.6	1715.3	1675.3	1648.7	1646.7	1646.7	1652.4	1671.5	1696.2	1719.1
42.5°	1570.6	1479.2	1397.3	1323.1	1269.8	1239.3	1226.0	1227.9	1243.2	1266.0	1304.0
45°	1366.9	1252.7	1149.9	1060.4	988.0	940.4	917.6	915.7	927.1	953.8	995.7
47.5°	1208.9	1087.0	970.9	868.1	790.1	738.6	712.0	704.4	712.0	736.7	786.2
50°	1077.5	951.9	831.9	725.3	641.6	588.3	563.5	554.0	563.5	584.5	633.9
52.5°	955.7	826.2	713.9	611.1	521.6	475.9	449.3	443.5	449.3	474.0	514.0
55°	814.8	704.4	594.0	491.2	413.1	367.4	346.5	340.8	346.5	369.3	411.2
57.5°	675.8	580.6	483.6	390.3	323.6	283.6	264.6	257.0	270.3	285.5	335.1
60°	546.4	470.2	388.3	306.5	251.3	215.1	199.9	198.0	201.8	220.8	255.1
62.5°	428.4	365.5	300.8	234.2	188.5	173.2	154.2	152.3	156.1	167.5	194.2
65°	308.4	268.4	218.9	171.3	135.2	114.2	106.6	108.5	112.3	119.9	144.7
67.5°	215.1	186.6	152.3	119.9	93.3	83.8	76.2	74.3	76.2	89.5	102.8
70°	144.7	127.5	102.8	91.4	64.7	51.4	53.3	47.6	55.2	55.2	66.6
72.5°	95.2	83.8	68.5	53.3	45.7	36.2	36.2	34.3	38.1	40.0	49.5
75°	49.5	38.1	38.1	26.6	19.1	9.5	17.1	15.2	13.3	15.2	19.1
77.5°	34.3	28.6	26.6	21.0	19.1	15.2	15.2	15.2	15.2	17.1	19.1
80°	21.0	21.0	15.2	13.3	11.4	9.5	11.4	11.4	11.4	11.4	13.3
82.5°	13.3	11.4	11.4	9.5	9.5	7.6	7.6	7.6	7.6	7.6	11.4
85°	11.4	7.6	7.6	5.7	7.6	13.3	5.7	7.6	7.6	7.6	5.7
87.5°	3.8	5.7	5.7	5.7	3.8	1.9	3.8	5.7	5.7	9.5	7.6
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°	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7	3546.7
2.5°	3552.4	3554.3	3554.3	3552.4	3552.4	3548.6	3556.2	3550.5	3552.4	3560.0	3554.3
5°	3556.2	3558.1	3558.1	3556.2	3556.2	3556.2	3558.1	3558.1	3556.2	3554.3	3558.1
7.5°	3563.8	3561.9	3561.9	3558.1	3558.1	3554.3	3558.1	3552.4	3556.2	3552.4	3558.1
10°	3554.3	3556.2	3554.3	3552.4	3552.4	3550.5	3550.5	3544.7	3546.7	3540.9	3544.7
12.5°	3548.6	3546.7	3546.7	3542.8	3539.1	3535.2	3533.3	3527.6	3527.6	3514.3	3520.0
15°	3533.3	3535.2	3529.5	3521.9	3518.1	3508.6	3504.8	3497.1	3489.6	3480.0	3482.0
17.5°	3520.0	3514.3	3506.7	3499.1	3483.8	3476.2	3468.6	3457.2	3453.4	3441.9	3438.2
20°	3480.0	3476.2	3466.7	3453.4	3443.9	3426.7	3419.1	3407.7	3398.2	3386.7	3381.0
22.5°	3428.6	3424.8	3413.4	3400.1	3384.8	3377.2	3369.6	3348.7	3339.1	3327.7	3325.8
25°	3363.9	3358.2	3346.8	3331.5	3323.9	3303.0	3295.4	3280.1	3276.3	3264.9	3263.0
27.5°	3264.9	3257.3	3244.0	3224.9	3211.6	3198.3	3190.7	3179.2	3175.5	3164.0	3162.1
30°	3116.4	3106.9	3080.2	3072.6	3049.8	3036.5	3036.5	3021.2	3023.1	3015.5	3015.5
32.5°	2882.3	2867.0	2846.1	2830.8	2815.6	2808.0	2808.0	2802.3	2806.1	2806.1	2809.9
35°	2571.9	2551.0	2539.6	2530.1	2530.1	2537.7	2560.5	2566.3	2577.7	2587.2	2594.8
37.5°	2174.0	2172.2	2185.5	2196.9	2225.5	2257.8	2297.8	2332.1	2364.4	2387.3	2410.1
40°	1743.8	1791.4	1829.5	1882.8	1926.6	1989.4	2061.7	2120.8	2176.0	2216.0	2257.8
42.5°	1361.2	1422.1	1502.1	1580.1	1658.2	1743.8	1839.0	1920.9	1993.2	2048.4	2092.2
45°	1060.4	1144.1	1241.3	1340.2	1441.1	1547.8	1646.7	1730.5	1806.7	1863.8	1907.6
47.5°	854.8	946.2	1056.6	1165.1	1279.3	1391.6	1502.1	1574.4	1637.2	1682.9	1722.9
50°	706.3	803.4	919.5	1043.2	1157.5	1269.8	1365.0	1435.4	1486.8	1526.8	1551.5
52.5°	590.1	692.9	816.7	940.4	1054.6	1157.5	1243.2	1296.5	1338.3	1366.9	1389.7
55°	487.3	586.4	702.5	818.6	930.9	1028.0	1098.4	1138.4	1170.8	1187.9	1201.2
57.5°	397.9	489.2	595.9	702.5	799.6	879.5	934.7	974.7	989.9	1003.3	1001.4
60°	312.2	397.9	495.0	586.4	670.1	734.8	774.8	797.7	809.1	814.8	811.0
62.5°	245.6	323.6	397.9	477.8	538.8	594.0	632.1	632.1	637.7	639.7	645.4
65°	182.7	241.8	306.5	365.5	415.0	451.2	472.1	477.8	485.5	483.6	479.7
67.5°	135.2	179.0	226.5	270.3	304.6	327.4	342.7	356.0	354.1	350.3	348.4
70°	93.3	121.9	163.7	190.4	215.1	238.0	241.8	243.7	245.6	247.5	243.7
72.5°	64.7	85.7	108.5	131.4	146.6	156.1	165.6	167.5	167.5	167.5	165.6
75°	32.4	43.8	64.7	74.3	87.6	91.4	99.0	99.0	104.7	97.1	95.2
77.5°	28.6	34.3	45.7	53.3	59.0	64.7	66.6	72.3	70.4	66.6	68.5
80°	17.1	21.0	28.6	32.4	40.0	41.9	43.8	45.7	43.8	45.7	45.7
82.5°	13.3	15.2	19.1	19.1	24.7	24.7	26.6	26.6	28.6	28.6	28.6
85°	7.6	13.3	11.4	22.8	15.2	15.2	19.1	22.8	19.1	19.1	22.8
87.5°	7.6	7.6	5.7	7.6	7.6	7.6	9.5	11.4	11.4	13.3	11.4
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: P249587

CATALOG NUMBER: LSR8B70D010 EC8B70940 8LBDW0MW

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	3546.7	3546.7	3546.7	3546.7
2.5°	3552.4	3556.2	3550.5	3548.6
5°	3558.1	3558.1	3554.3	3554.3
7.5°	3558.1	3558.1	3552.4	3548.6
10°	3542.8	3542.8	3537.2	3533.3
12.5°	3514.3	3514.3	3512.4	3506.7
15°	3478.1	3478.1	3470.5	3464.8
17.5°	3428.6	3432.4	3422.9	3422.9
20°	3375.3	3373.4	3365.8	3362.0
22.5°	3320.1	3316.3	3314.4	3303.0
25°	3261.1	3257.3	3251.6	3245.9
27.5°	3160.2	3158.3	3152.6	3145.0
30°	3006.0	3004.1	2996.5	2996.5
32.5°	2806.1	2804.2	2796.6	2798.5
35°	2598.6	2606.2	2602.4	2594.8
37.5°	2425.4	2431.1	2434.9	2431.1
40°	2280.7	2297.8	2299.7	2303.5
42.5°	2126.5	2149.3	2156.9	2160.7
45°	1941.8	1962.8	1979.9	1976.1
47.5°	1753.3	1768.6	1783.8	1772.4
50°	1572.5	1582.0	1587.7	1587.7
52.5°	1401.2	1401.2	1399.3	1401.2
55°	1205.1	1205.1	1197.5	1201.2
57.5°	999.5	1003.3	997.5	988.0
60°	809.1	799.6	795.8	790.1
62.5°	630.2	630.2	616.8	633.9
65°	472.1	466.4	460.7	458.8
67.5°	342.7	340.8	335.1	333.2
70°	241.8	234.2	232.3	228.4
72.5°	161.8	161.8	158.0	158.0
75°	99.0	89.5	87.6	89.5
77.5°	68.5	66.6	66.6	64.7
80°	45.7	43.8	47.6	41.9
82.5°	28.6	30.5	28.6	30.5
85°	19.1	22.8	21.0	21.0
87.5°	11.4	11.4	11.4	11.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)