

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: P249434

Luminaire Tested: **LSR8B70D010 EC8B70840 8LBDW0B**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249434
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 EC8B70840 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: 6710.0 lumens
Efficiency: N/A
Efficacy: 88.4 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

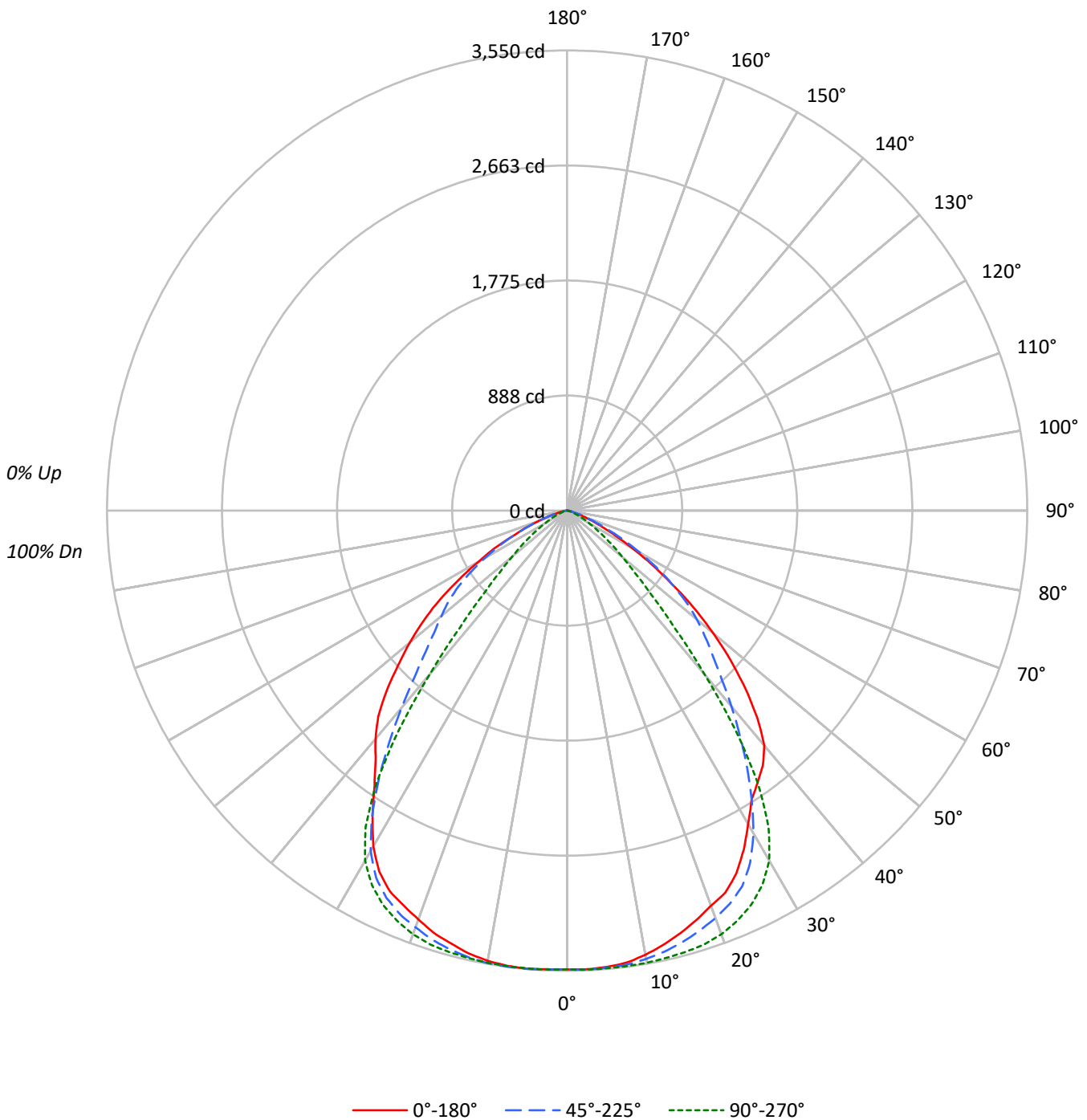
Input Watts (W): 75.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	109170	109170	109170
5°	109410	109704	109825
10°	108950	110913	110437
15°	107744	112536	110413
20°	106450	114119	110128
25°	105066	114250	110242
30°	99400	111036	106503
35°	96433	96501	97506
40°	95237	66399	92560
45°	84863	39863	86019
50°	70563	26529	76032
55°	52923	18290	64465
60°	35863	12187	48641
65°	21634	7902	33418
70°	11991	4283	20556
75°	5433	1811	10639
80°	4724	2024	7423
85°	5378	2689	7395



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	337.9	5.0
10°-20°	981.2	14.6
20°-30°	1489.3	22.2
30°-40°	1564.2	23.3
40°-50°	1172.8	17.5
50°-60°	752.5	11.2
60°-70°	321.9	4.8
70°-80°	76.0	1.1
80°-90°	14.1	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°	2808.4	41.9
0°-40°	4372.7	65.2
0°-60°	6297.9	93.9
0°-90°	6710.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6710.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3540	3540	3540	3540	3540	
5°	3535	3540	3544	3550	3548	336
15°	3375	3445	3525	3502	3459	952
25°	3088	3196	3358	3297	3240	1411
35°	2562	2419	2564	2533	2590	1608
45°	1946	1591	914	1545	1972	1490
55°	984	984	340	1026	1199	893
65°	296	350	108	450	458	316
75°	46	53	15	91	89	66
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°	3540.3	3540.3	3540.3	3540.3	3540.3	3540.3	3540.3	3540.3	3540.3	3540.3	3540.3
2.5°	3542.2	3546.0	3544.1	3544.1	3542.2	3544.1	3544.1	3548.0	3548.0	3544.1	3542.2
5°	3534.6	3538.4	3538.4	3534.6	3534.6	3544.1	3538.4	3542.2	3542.2	3540.3	3540.3
7.5°	3517.5	3517.5	3525.1	3519.4	3519.4	3525.1	3523.2	3527.0	3530.8	3532.7	3532.7
10°	3479.5	3483.3	3485.2	3485.2	3487.1	3492.8	3496.6	3504.2	3508.0	3511.8	3513.7
12.5°	3432.0	3437.7	3439.6	3437.7	3443.4	3451.0	3460.5	3470.0	3475.7	3483.3	3489.0
15°	3375.0	3375.0	3378.8	3384.5	3388.3	3399.7	3409.2	3420.6	3435.8	3445.3	3454.8
17.5°	3312.3	3316.1	3321.8	3321.8	3329.4	3348.4	3354.1	3371.2	3388.3	3397.8	3416.8
20°	3243.9	3247.7	3253.4	3257.2	3266.7	3281.9	3293.3	3308.5	3327.5	3344.6	3363.6
22.5°	3190.7	3183.1	3186.8	3190.7	3200.2	3213.5	3226.8	3245.8	3264.8	3281.9	3300.9
25°	3088.0	3089.9	3095.7	3099.4	3110.9	3122.3	3137.5	3160.3	3177.4	3196.4	3217.3
27.5°	2949.3	2951.2	2960.7	2960.7	2970.2	2989.2	2998.7	3017.7	3040.6	3059.5	3084.3
30°	2791.6	2795.4	2795.4	2803.0	2808.7	2818.2	2827.7	2846.7	2858.1	2875.2	2909.4
32.5°	2647.2	2651.0	2649.1	2647.2	2641.5	2639.6	2637.7	2641.5	2645.3	2651.0	2664.3
35°	2561.7	2552.1	2544.6	2531.3	2516.1	2497.0	2479.9	2457.2	2436.2	2419.1	2400.1
37.5°	2479.9	2478.0	2466.6	2447.6	2417.2	2383.0	2343.1	2293.7	2244.3	2191.1	2139.8
40°	2365.9	2360.2	2350.7	2324.1	2289.9	2248.1	2194.9	2134.1	2054.2	1972.5	1888.9
42.5°	2172.1	2174.0	2162.6	2141.7	2109.4	2069.5	2014.3	1947.9	1862.3	1765.4	1657.1
45°	1946.0	1946.0	1942.1	1925.0	1902.2	1869.9	1828.1	1773.0	1689.4	1590.6	1474.6
47.5°	1710.3	1712.2	1706.5	1702.7	1693.2	1672.3	1641.9	1600.1	1541.2	1446.1	1330.2
50°	1470.9	1470.9	1480.4	1478.5	1478.5	1470.9	1457.6	1432.8	1381.6	1305.5	1197.2
52.5°	1231.4	1235.2	1240.9	1248.5	1258.0	1273.2	1258.0	1246.6	1214.3	1155.4	1062.3
55°	984.4	988.2	997.7	1011.0	1022.4	1037.6	1041.4	1041.4	1024.3	984.4	914.1
57.5°	773.5	767.7	775.4	786.7	802.0	817.2	828.6	841.9	839.9	813.3	756.3
60°	581.5	583.4	589.1	600.5	611.9	625.2	640.4	651.8	657.5	644.2	608.1
62.5°	423.8	423.8	431.4	442.8	448.5	467.5	477.0	482.7	488.4	486.5	463.7
65°	296.5	300.2	304.1	309.8	315.4	326.8	332.6	343.9	347.8	349.7	332.6
67.5°	209.1	203.3	207.1	210.9	216.6	224.3	235.7	235.7	241.3	241.3	229.9
70°	133.0	133.0	134.9	140.6	144.4	146.3	150.1	153.9	159.6	157.7	157.7
72.5°	89.3	87.4	89.3	91.2	93.1	98.8	98.8	100.7	104.5	106.4	98.8
75°	45.6	47.5	51.3	49.4	55.1	51.3	53.2	58.9	57.0	53.2	53.2
77.5°	38.0	38.0	38.0	36.1	39.9	39.9	38.0	41.8	39.9	39.9	38.0
80°	26.6	28.5	26.6	24.7	26.6	24.7	24.7	24.7	24.7	24.7	22.8
82.5°	20.9	17.1	19.0	17.1	19.0	19.0	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°	3540.3	3540.3	3540.3	3540.3	3540.3	3540.3	3540.3	3540.3	3540.3	3540.3	3540.3
2.5°	3546.0	3544.1	3548.0	3546.0	3546.0	3544.1	3546.0	3544.1	3548.0	3540.3	3542.2
5°	3546.0	3542.2	3544.1	3546.0	3548.0	3544.1	3544.1	3544.1	3548.0	3544.1	3546.0
7.5°	3538.4	3536.5	3542.2	3546.0	3544.1	3542.2	3546.0	3544.1	3548.0	3546.0	3549.8
10°	3523.2	3525.1	3528.9	3534.6	3536.5	3538.4	3542.2	3542.2	3548.0	3540.3	3544.1
12.5°	3500.4	3508.0	3517.5	3521.3	3528.9	3528.9	3532.7	3534.6	3538.4	3536.5	3542.2
15°	3471.9	3481.4	3492.8	3502.3	3511.8	3517.5	3523.2	3525.1	3530.8	3525.1	3527.0
17.5°	3437.7	3449.1	3466.2	3477.6	3492.8	3498.5	3506.1	3509.9	3515.6	3511.8	3513.7
20°	3390.2	3403.5	3422.5	3439.6	3449.1	3462.4	3471.9	3477.6	3481.4	3477.6	3479.5
22.5°	3323.7	3342.7	3367.4	3380.7	3399.7	3411.1	3413.0	3426.3	3435.8	3426.3	3430.1
25°	3245.8	3264.8	3283.8	3312.3	3329.4	3342.7	3356.0	3357.9	3367.4	3365.5	3363.6
27.5°	3116.5	3141.3	3173.6	3196.4	3219.2	3240.1	3255.3	3259.1	3268.6	3264.8	3266.7
30°	2939.8	2966.4	2996.9	3032.9	3065.3	3086.1	3105.2	3118.4	3127.9	3122.3	3120.4
32.5°	2689.0	2715.6	2747.9	2784.0	2822.0	2852.4	2875.2	2892.3	2903.7	2899.9	2890.4
35°	2402.1	2409.6	2430.6	2459.1	2491.3	2523.6	2544.6	2563.5	2576.8	2580.7	2580.7
37.5°	2107.5	2082.8	2067.6	2067.6	2086.6	2099.9	2118.9	2130.3	2151.2	2158.8	2164.5
40°	1822.4	1765.4	1712.2	1672.3	1645.7	1643.8	1643.8	1649.5	1668.5	1693.2	1716.0
42.5°	1567.8	1476.6	1394.9	1320.7	1267.5	1237.1	1223.8	1225.7	1240.9	1263.7	1301.7
45°	1364.4	1250.4	1147.8	1058.5	986.3	938.8	916.0	914.1	925.5	952.1	993.9
47.5°	1206.7	1085.1	969.2	866.5	788.7	737.3	710.7	703.1	710.7	735.4	784.8
50°	1075.6	950.2	830.5	724.0	640.4	587.2	562.5	553.0	562.5	583.4	632.8
52.5°	954.0	824.7	712.6	610.0	520.7	475.1	448.5	442.8	448.5	473.2	513.1
55°	813.3	703.1	592.9	490.3	412.4	366.8	345.9	340.2	345.9	368.7	410.5
57.5°	674.6	579.6	482.7	389.6	323.1	283.1	264.2	256.5	269.8	285.0	334.5
60°	545.4	469.4	387.7	306.0	250.9	214.7	199.5	197.6	201.4	220.4	254.6
62.5°	427.6	364.9	300.2	233.7	188.1	172.9	153.9	152.0	155.8	167.2	193.9
65°	307.9	268.0	218.5	171.0	134.9	114.0	106.4	108.3	112.1	119.7	144.4
67.5°	214.7	186.2	152.0	119.7	93.1	83.6	76.0	74.1	76.0	89.3	102.6
70°	144.4	127.3	102.6	91.2	64.6	51.3	53.2	47.5	55.1	55.1	66.5
72.5°	95.0	83.6	68.4	53.2	45.6	36.1	36.1	34.2	38.0	39.9	49.4
75°	49.4	38.0	38.0	26.6	19.0	9.5	17.1	15.2	13.3	15.2	19.0
77.5°	34.2	28.5	26.6	20.9	19.0	15.2	15.2	15.2	15.2	17.1	19.0
80°	20.9	20.9	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°	3540.3	3540.3	3540.3	3540.3	3540.3	3540.3	3540.3	3540.3	3540.3	3540.3	3540.3
2.5°	3546.0	3548.0	3548.0	3546.0	3546.0	3542.2	3549.8	3544.1	3546.0	3553.6	3548.0
5°	3549.8	3551.7	3551.7	3549.8	3549.8	3549.8	3551.7	3551.7	3549.8	3548.0	3551.7
7.5°	3557.4	3555.5	3555.5	3551.7	3551.7	3548.0	3551.7	3546.0	3549.8	3546.0	3551.7
10°	3548.0	3549.8	3548.0	3546.0	3546.0	3544.1	3544.1	3538.4	3540.3	3534.6	3538.4
12.5°	3542.2	3540.3	3540.3	3536.5	3532.7	3528.9	3527.0	3521.3	3521.3	3508.0	3513.7
15°	3527.0	3528.9	3523.2	3515.6	3511.8	3502.3	3498.5	3490.9	3483.3	3473.8	3475.7
17.5°	3513.7	3508.0	3500.4	3492.8	3477.6	3470.0	3462.4	3451.0	3447.2	3435.8	3432.0
20°	3473.8	3470.0	3460.5	3447.2	3437.7	3420.6	3413.0	3401.6	3392.1	3380.7	3375.0
22.5°	3422.5	3418.7	3407.3	3394.0	3378.8	3371.2	3363.6	3342.7	3333.2	3321.8	3319.9
25°	3357.9	3352.2	3340.8	3325.6	3318.0	3297.1	3289.5	3274.3	3270.5	3259.1	3257.2
27.5°	3259.1	3251.5	3238.2	3219.2	3205.9	3192.6	3185.0	3173.6	3169.8	3158.3	3156.5
30°	3110.9	3101.3	3074.7	3067.2	3044.3	3031.0	3031.0	3015.8	3017.7	3010.2	3010.2
32.5°	2877.1	2861.9	2841.0	2825.8	2810.6	2803.0	2803.0	2797.3	2801.1	2801.1	2804.9
35°	2567.4	2546.5	2535.0	2525.6	2525.6	2533.1	2556.0	2561.7	2573.1	2582.6	2590.2
37.5°	2170.2	2168.3	2181.6	2193.0	2221.5	2253.8	2293.7	2327.9	2360.2	2383.0	2405.8
40°	1740.7	1788.2	1826.2	1879.5	1923.1	1985.8	2058.1	2117.0	2172.1	2212.0	2253.8
42.5°	1358.7	1419.5	1499.4	1577.3	1655.2	1740.7	1835.7	1917.4	1989.7	2044.8	2088.5
45°	1058.5	1142.1	1239.0	1337.8	1438.6	1545.0	1643.8	1727.4	1803.4	1860.4	1904.1
47.5°	853.2	944.5	1054.7	1163.0	1277.0	1389.1	1499.4	1571.6	1634.3	1679.9	1719.8
50°	705.0	802.0	917.9	1041.4	1155.4	1267.5	1362.5	1432.8	1484.2	1524.1	1548.8
52.5°	589.1	691.7	815.3	938.8	1052.8	1155.4	1240.9	1294.1	1335.9	1364.4	1387.2
55°	486.5	585.3	701.2	817.2	929.3	1026.2	1096.5	1136.4	1168.7	1185.8	1199.1
57.5°	397.2	488.4	594.8	701.2	798.1	878.0	933.1	973.0	988.2	1001.5	999.6
60°	311.7	397.2	494.1	585.3	668.9	733.5	773.5	796.2	807.6	813.3	809.5
62.5°	245.1	323.1	397.2	477.0	537.8	592.9	630.9	630.9	636.6	638.5	644.2
65°	182.4	241.3	306.0	364.9	414.3	450.4	471.3	477.0	484.6	482.7	478.9
67.5°	134.9	178.6	226.1	269.8	304.1	326.8	342.0	355.4	353.5	349.7	347.8
70°	93.1	121.6	163.4	190.0	214.7	237.6	241.3	243.2	245.1	247.0	243.2
72.5°	64.6	85.5	108.3	131.1	146.3	155.8	165.3	167.2	167.2	167.2	165.3
75°	32.3	43.7	64.6	74.1	87.4	91.2	98.8	98.8	104.5	96.9	95.0
77.5°	28.5	34.2	45.6	53.2	58.9	64.6	66.5	72.2	70.3	66.5	68.4
80°	17.1	20.9	28.5	32.3	39.9	41.8	43.7	45.6	43.7	45.6	45.6
82.5°	13.3	15.2	19.0	19.0	24.7	24.7	26.6	26.6	28.5	28.5	28.5
85°	7.6	13.3	11.4	22.8	15.2	15.2	19.0	22.8	19.0	19.0	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: P249434

CATALOG NUMBER: LSR8B70D010 EC8B70840 8LBDW0B

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	3540.3	3540.3	3540.3	3540.3
2.5°	3546.0	3549.8	3544.1	3542.2
5°	3551.7	3551.7	3548.0	3548.0
7.5°	3551.7	3551.7	3546.0	3542.2
10°	3536.5	3536.5	3530.8	3527.0
12.5°	3508.0	3508.0	3506.1	3500.4
15°	3471.9	3471.9	3464.3	3458.6
17.5°	3422.5	3426.3	3416.8	3416.8
20°	3369.3	3367.4	3359.8	3356.0
22.5°	3314.2	3310.4	3308.5	3297.1
25°	3255.3	3251.5	3245.8	3240.1
27.5°	3154.6	3152.7	3147.0	3139.4
30°	3000.6	2998.7	2991.1	2991.1
32.5°	2801.1	2799.2	2791.6	2793.5
35°	2594.0	2601.6	2597.8	2590.2
37.5°	2421.0	2426.7	2430.6	2426.7
40°	2276.6	2293.7	2295.6	2299.4
42.5°	2122.7	2145.5	2153.1	2156.9
45°	1938.3	1959.2	1976.4	1972.5
47.5°	1750.2	1765.4	1780.6	1769.2
50°	1569.7	1579.2	1584.9	1584.9
52.5°	1398.7	1398.7	1396.8	1398.7
55°	1202.9	1202.9	1195.3	1199.1
57.5°	997.7	1001.5	995.8	986.3
60°	807.6	798.1	794.3	788.7
62.5°	629.0	629.0	615.7	632.8
65°	471.3	465.6	459.9	458.0
67.5°	342.0	340.2	334.5	332.6
70°	241.3	233.7	231.8	228.0
72.5°	161.5	161.5	157.7	157.7
75°	98.8	89.3	87.4	89.3
77.5°	68.4	66.5	66.5	64.6
80°	45.6	43.7	47.5	41.8
82.5°	28.5	30.4	28.5	30.4
85°	19.0	22.8	20.9	20.9
87.5°	11.4	11.4	11.4	11.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)