

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: P249101

Luminaire Tested: **LSR8B70D010 EC8B70835 8LBDW0H**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249101
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 EC8B70835 8LBDW0H
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 3500 CCT WITH SEMI-SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7633.0 lumens
Efficiency: N/A
Efficacy: 100.6 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

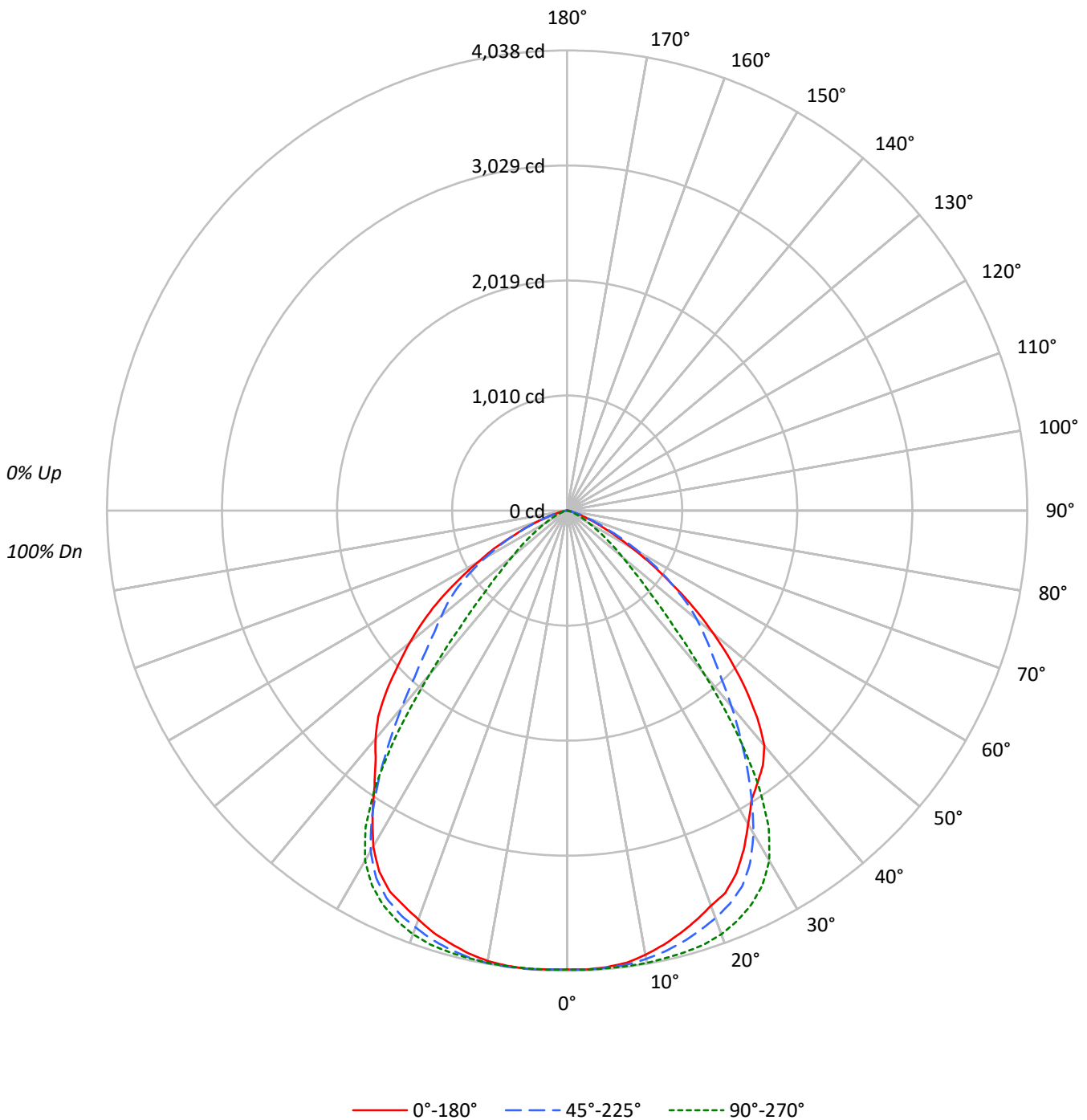
Input Watts (W): 75.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	124187	124187	124187
5°	124460	124798	124931
10°	123936	126172	125630
15°	122563	128016	125602
20°	121092	129817	125276
25°	119520	129965	125406
30°	113073	126311	121155
35°	109699	109778	110919
40°	108339	75533	105292
45°	96533	45345	97855
50°	80268	30180	86490
55°	60202	20806	73331
60°	40796	13864	55327
65°	24611	8989	38015
70°	13641	4878	23387
75°	6183	2061	12105
80°	5381	2309	8453
85°	6121	3043	8421



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	384.4	5.0
10°-20°	1116.2	14.6
20°-30°	1694.2	22.2
30°-40°	1779.4	23.3
40°-50°	1334.1	17.5
50°-60°	856.0	11.2
60°-70°	366.2	4.8
70°-80°	86.5	1.1
80°-90°	16.1	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°	3194.8	41.9
0°-40°	4974.2	65.2
0°-60°	7164.2	93.9
0°-90°	7633.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7633.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4027	4027	4027	4027	4027	
5°	4021	4027	4032	4038	4036	382
15°	3839	3919	4010	3984	3934	1083
25°	3513	3636	3820	3751	3686	1605
35°	2914	2752	2916	2882	2946	1829
45°	2214	1809	1040	1758	2244	1695
55°	1120	1120	387	1167	1364	1016
65°	337	398	123	512	521	360
75°	52	60	17	104	102	76
85°	17	11	9	17	24	18
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°	4027.3	4027.3	4027.3	4027.3	4027.3	4027.3	4027.3	4027.3	4027.3	4027.3	4027.3
2.5°	4029.5	4033.8	4031.7	4031.7	4029.5	4031.7	4031.7	4036.0	4036.0	4031.7	4029.5
5°	4020.8	4025.2	4025.2	4020.8	4020.8	4031.7	4025.2	4029.5	4029.5	4027.3	4027.3
7.5°	4001.4	4001.4	4010.0	4003.6	4003.6	4010.0	4007.9	4012.2	4016.5	4018.7	4018.7
10°	3958.1	3962.5	3964.6	3964.6	3966.8	3973.3	3977.6	3986.3	3990.6	3994.9	3997.1
12.5°	3904.1	3910.6	3912.8	3910.6	3917.1	3925.7	3936.6	3947.3	3953.8	3962.5	3969.0
15°	3839.2	3839.2	3843.6	3850.1	3854.4	3867.4	3878.2	3891.1	3908.4	3919.3	3930.0
17.5°	3767.9	3772.3	3778.7	3778.7	3787.4	3809.0	3815.5	3834.9	3854.4	3865.2	3886.8
20°	3690.1	3694.4	3700.9	3705.2	3716.0	3733.3	3746.3	3763.6	3785.2	3804.7	3826.3
22.5°	3629.6	3620.9	3625.2	3629.6	3640.4	3655.5	3670.7	3692.2	3713.9	3733.3	3755.0
25°	3512.8	3515.0	3521.5	3525.8	3538.8	3551.7	3569.0	3595.0	3614.4	3636.1	3659.8
27.5°	3355.0	3357.2	3368.0	3368.0	3378.8	3400.4	3411.2	3432.8	3458.8	3480.4	3508.5
30°	3175.6	3179.9	3179.9	3188.6	3195.0	3205.9	3216.7	3238.3	3251.3	3270.7	3309.6
32.5°	3011.3	3015.6	3013.4	3011.3	3004.8	3002.7	3000.5	3004.8	3009.2	3015.6	3030.7
35°	2914.1	2903.2	2894.6	2879.5	2862.2	2840.5	2821.1	2795.1	2771.3	2751.9	2730.3
37.5°	2821.1	2818.9	2805.9	2784.3	2749.7	2710.8	2665.4	2609.2	2553.0	2492.5	2434.1
40°	2691.4	2684.9	2674.1	2643.8	2604.9	2557.3	2496.8	2427.6	2336.8	2243.9	2148.8
42.5°	2470.9	2473.0	2460.1	2436.3	2399.6	2354.1	2291.4	2215.8	2118.5	2008.2	1885.0
45°	2213.6	2213.6	2209.3	2189.8	2163.9	2127.1	2079.6	2016.9	1921.8	1809.4	1677.5
47.5°	1945.6	1947.7	1941.2	1936.9	1926.1	1902.3	1867.8	1820.2	1753.2	1645.1	1513.2
50°	1673.2	1673.2	1684.0	1681.8	1681.8	1673.2	1658.1	1629.9	1571.6	1485.1	1361.9
52.5°	1400.8	1405.1	1411.6	1420.3	1431.1	1448.4	1431.1	1418.1	1381.3	1314.3	1208.4
55°	1119.8	1124.1	1134.9	1150.0	1163.0	1180.3	1184.6	1184.6	1165.2	1119.8	1039.8
57.5°	879.8	873.3	882.0	895.0	912.3	929.6	942.5	957.7	955.5	925.2	860.4
60°	661.5	663.7	670.1	683.1	696.1	711.2	728.5	741.5	748.0	732.8	691.8
62.5°	482.1	482.1	490.7	503.7	510.2	531.8	542.6	549.1	555.5	553.4	527.5
65°	337.3	341.5	345.9	352.4	358.8	371.8	378.3	391.3	395.6	397.8	378.3
67.5°	237.8	231.3	235.6	239.9	246.4	255.1	268.1	268.1	274.5	274.5	261.6
70°	151.3	151.3	153.5	160.0	164.3	166.5	170.8	175.1	181.6	179.4	179.4
72.5°	101.6	99.4	101.6	103.8	105.9	112.4	112.4	114.6	118.9	121.1	112.4
75°	51.9	54.1	58.3	56.2	62.7	58.3	60.5	67.0	64.8	60.5	60.5
77.5°	43.2	43.2	43.2	41.1	45.4	45.4	43.2	47.6	45.4	45.4	43.2
80°	30.3	32.4	30.3	28.1	30.3	28.1	28.1	28.1	28.1	28.1	25.9
82.5°	23.8	19.5	21.6	19.5	21.6	21.6	19.5	17.3	17.3	19.5	17.3
85°	17.3	13.0	15.1	15.1	13.0	13.0	13.0	13.0	13.0	10.8	10.8
87.5°	10.8	6.5	6.5	6.5	8.6	8.6	8.6	6.5	8.6	8.6	4.3
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°	4027.3	4027.3	4027.3	4027.3	4027.3	4027.3	4027.3	4027.3	4027.3	4027.3	4027.3
2.5°	4033.8	4031.7	4036.0	4033.8	4033.8	4031.7	4033.8	4031.7	4036.0	4027.3	4029.5
5°	4033.8	4029.5	4031.7	4033.8	4036.0	4031.7	4031.7	4031.7	4036.0	4031.7	4033.8
7.5°	4025.2	4023.0	4029.5	4033.8	4031.7	4029.5	4033.8	4031.7	4036.0	4033.8	4038.1
10°	4007.9	4010.0	4014.4	4020.8	4023.0	4025.2	4029.5	4029.5	4036.0	4027.3	4031.7
12.5°	3981.9	3990.6	4001.4	4005.7	4014.4	4014.4	4018.7	4020.8	4025.2	4023.0	4029.5
15°	3949.5	3960.3	3973.3	3984.1	3994.9	4001.4	4007.9	4010.0	4016.5	4010.0	4012.2
17.5°	3910.6	3923.5	3943.0	3956.0	3973.3	3979.8	3988.4	3992.7	3999.2	3994.9	3997.1
20°	3856.5	3871.7	3893.3	3912.8	3923.5	3938.7	3949.5	3956.0	3960.3	3956.0	3958.1
22.5°	3780.9	3802.5	3830.6	3845.7	3867.4	3880.3	3882.5	3897.6	3908.4	3897.6	3902.0
25°	3692.2	3713.9	3735.5	3767.9	3787.4	3802.5	3817.6	3819.8	3830.6	3828.4	3826.3
27.5°	3545.2	3573.4	3610.1	3636.1	3662.0	3685.8	3703.1	3707.4	3718.2	3713.9	3716.0
30°	3344.2	3374.5	3409.1	3450.1	3486.9	3510.7	3532.3	3547.4	3558.2	3551.7	3549.6
32.5°	3058.9	3089.1	3125.9	3166.9	3210.2	3244.8	3270.7	3290.2	3303.1	3298.8	3288.0
35°	2732.5	2741.1	2764.9	2797.3	2834.0	2870.8	2894.6	2916.2	2931.3	2935.6	2935.6
37.5°	2397.4	2369.3	2352.0	2352.0	2373.6	2388.7	2410.3	2423.3	2447.1	2455.7	2462.2
40°	2073.1	2008.2	1947.7	1902.3	1872.1	1869.9	1869.9	1876.4	1898.0	1926.1	1952.1
42.5°	1783.4	1679.7	1586.7	1502.4	1441.9	1407.3	1392.2	1394.3	1411.6	1437.6	1480.8
45°	1552.1	1422.4	1305.7	1204.1	1121.9	1067.9	1042.0	1039.8	1052.8	1083.0	1130.6
47.5°	1372.7	1234.3	1102.5	985.7	897.1	838.7	808.5	799.9	808.5	836.6	892.8
50°	1223.6	1080.9	944.7	823.6	728.5	668.0	639.9	629.1	639.9	663.7	719.8
52.5°	1085.2	938.2	810.7	693.9	592.3	540.4	510.2	503.7	510.2	538.3	583.7
55°	925.2	799.9	674.5	557.7	469.1	417.2	393.4	387.0	393.4	419.4	467.0
57.5°	767.4	659.3	549.1	443.1	367.5	322.1	300.5	291.8	306.9	324.2	380.5
60°	620.4	534.0	441.0	348.0	285.4	244.3	227.0	224.8	229.1	250.8	289.7
62.5°	486.4	415.1	341.5	265.9	214.0	196.7	175.1	173.0	177.2	190.2	220.5
65°	350.2	304.8	248.6	194.5	153.5	129.7	121.1	123.2	127.5	136.2	164.3
67.5°	244.3	211.8	173.0	136.2	105.9	95.1	86.5	84.3	86.5	101.6	116.7
70°	164.3	144.8	116.7	103.8	73.5	58.3	60.5	54.1	62.7	62.7	75.6
72.5°	108.1	95.1	77.8	60.5	51.9	41.1	41.1	38.9	43.2	45.4	56.2
75°	56.2	43.2	43.2	30.3	21.6	10.8	19.5	17.3	15.1	17.3	21.6
77.5°	38.9	32.4	30.3	23.8	21.6	17.3	17.3	17.3	17.3	19.5	21.6
80°	23.8	23.8	17.3	15.1	13.0	10.8	13.0	13.0	13.0	13.0	15.1
82.5°	15.1	13.0	13.0	10.8	10.8	8.6	8.6	8.6	8.6	8.6	13.0
85°	13.0	8.6	8.6	6.5	8.6	15.1	6.5	8.6	8.6	8.6	6.5
87.5°	4.3	6.5	6.5	6.5	4.3	2.2	4.3	6.5	6.5	10.8	8.6
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°	4027.3	4027.3	4027.3	4027.3	4027.3	4027.3	4027.3	4027.3	4027.3	4027.3	4027.3
2.5°	4033.8	4036.0	4036.0	4033.8	4033.8	4029.5	4038.1	4031.7	4033.8	4042.4	4036.0
5°	4038.1	4040.3	4040.3	4038.1	4038.1	4038.1	4040.3	4040.3	4038.1	4036.0	4040.3
7.5°	4046.8	4044.6	4044.6	4040.3	4040.3	4036.0	4040.3	4033.8	4038.1	4033.8	4040.3
10°	4036.0	4038.1	4036.0	4033.8	4033.8	4031.7	4031.7	4025.2	4027.3	4020.8	4025.2
12.5°	4029.5	4027.3	4027.3	4023.0	4018.7	4014.4	4012.2	4005.7	4005.7	3990.6	3997.1
15°	4012.2	4014.4	4007.9	3999.2	3994.9	3984.1	3979.8	3971.1	3962.5	3951.7	3953.8
17.5°	3997.1	3990.6	3981.9	3973.3	3956.0	3947.3	3938.7	3925.7	3921.4	3908.4	3904.1
20°	3951.7	3947.3	3936.6	3921.4	3910.6	3891.1	3882.5	3869.5	3858.7	3845.7	3839.2
22.5°	3893.3	3889.0	3876.0	3860.9	3843.6	3834.9	3826.3	3802.5	3791.7	3778.7	3776.5
25°	3819.8	3813.3	3800.4	3783.1	3774.4	3750.6	3742.0	3724.7	3720.4	3707.4	3705.2
27.5°	3707.4	3698.7	3683.6	3662.0	3646.9	3631.7	3623.1	3610.1	3605.8	3592.8	3590.7
30°	3538.8	3527.9	3497.7	3489.1	3463.1	3448.0	3448.0	3430.7	3432.8	3424.2	3424.2
32.5°	3272.9	3255.6	3231.8	3214.5	3197.2	3188.6	3188.6	3182.1	3186.4	3186.4	3190.7
35°	2920.5	2896.8	2883.7	2873.0	2873.0	2881.6	2907.5	2914.1	2927.0	2937.8	2946.5
37.5°	2468.7	2466.6	2481.7	2494.7	2527.1	2563.8	2609.2	2648.2	2684.9	2710.8	2736.8
40°	1980.2	2034.2	2077.4	2138.0	2187.7	2259.0	2341.2	2408.2	2470.9	2516.3	2563.8
42.5°	1545.6	1614.8	1705.6	1794.2	1882.9	1980.2	2088.3	2181.2	2263.3	2326.0	2375.7
45°	1204.1	1299.2	1409.5	1521.9	1636.4	1757.5	1869.9	1965.0	2051.5	2116.4	2166.1
47.5°	970.6	1074.4	1199.7	1323.0	1452.7	1580.2	1705.6	1787.8	1859.1	1911.0	1956.4
50°	802.0	912.3	1044.1	1184.6	1314.3	1441.9	1550.0	1629.9	1688.3	1733.7	1761.8
52.5°	670.1	786.9	927.4	1067.9	1197.6	1314.3	1411.6	1472.2	1519.7	1552.1	1578.1
55°	553.4	665.8	797.7	929.6	1057.1	1167.3	1247.3	1292.7	1329.4	1348.9	1364.0
57.5°	451.8	555.5	676.6	797.7	907.9	998.7	1061.4	1106.8	1124.1	1139.2	1137.1
60°	354.5	451.8	562.1	665.8	760.9	834.4	879.8	905.8	918.7	925.2	920.9
62.5°	278.9	367.5	451.8	542.6	611.8	674.5	717.7	717.7	724.2	726.3	732.8
65°	207.5	274.5	348.0	415.1	471.2	512.3	536.1	542.6	551.3	549.1	544.8
67.5°	153.5	203.2	257.2	306.9	345.9	371.8	389.1	404.3	402.1	397.8	395.6
70°	105.9	138.4	185.9	216.2	244.3	270.2	274.5	276.7	278.9	281.0	276.7
72.5°	73.5	97.3	123.2	149.2	166.5	177.2	188.1	190.2	190.2	190.2	188.1
75°	36.8	49.7	73.5	84.3	99.4	103.8	112.4	112.4	118.9	110.2	108.1
77.5°	32.4	38.9	51.9	60.5	67.0	73.5	75.6	82.1	80.0	75.6	77.8
80°	19.5	23.8	32.4	36.8	45.4	47.6	49.7	51.9	49.7	51.9	51.9
82.5°	15.1	17.3	21.6	21.6	28.1	28.1	30.3	30.3	32.4	32.4	32.4
85°	8.6	15.1	13.0	25.9	17.3	17.3	21.6	25.9	21.6	21.6	25.9
87.5°	8.6	8.6	6.5	8.6	8.6	8.6	10.8	13.0	13.0	15.1	13.0
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: P249101

CATALOG NUMBER: LSR8B70D010 EC8B70835 8LBDW0H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4027.3	4027.3	4027.3	4027.3
2.5°	4033.8	4038.1	4031.7	4029.5
5°	4040.3	4040.3	4036.0	4036.0
7.5°	4040.3	4040.3	4033.8	4029.5
10°	4023.0	4023.0	4016.5	4012.2
12.5°	3990.6	3990.6	3988.4	3981.9
15°	3949.5	3949.5	3940.8	3934.4
17.5°	3893.3	3897.6	3886.8	3886.8
20°	3832.8	3830.6	3822.0	3817.6
22.5°	3770.1	3765.8	3763.6	3750.6
25°	3703.1	3698.7	3692.2	3685.8
27.5°	3588.5	3586.3	3579.8	3571.2
30°	3413.4	3411.2	3402.6	3402.6
32.5°	3186.4	3184.2	3175.6	3177.8
35°	2950.8	2959.4	2955.1	2946.5
37.5°	2754.0	2760.6	2764.9	2760.6
40°	2589.8	2609.2	2611.4	2615.7
42.5°	2414.7	2440.6	2449.3	2453.6
45°	2205.0	2228.8	2248.2	2243.9
47.5°	1990.9	2008.2	2025.5	2012.6
50°	1785.6	1796.4	1802.9	1802.9
52.5°	1591.1	1591.1	1588.9	1591.1
55°	1368.4	1368.4	1359.8	1364.0
57.5°	1134.9	1139.2	1132.7	1121.9
60°	918.7	907.9	903.6	897.1
62.5°	715.6	715.6	700.4	719.8
65°	536.1	529.6	523.1	521.0
67.5°	389.1	387.0	380.5	378.3
70°	274.5	265.9	263.7	259.4
72.5°	183.8	183.8	179.4	179.4
75°	112.4	101.6	99.4	101.6
77.5°	77.8	75.6	75.6	73.5
80°	51.9	49.7	54.1	47.6
82.5°	32.4	34.6	32.4	34.6
85°	21.6	25.9	23.8	23.8
87.5°	13.0	13.0	13.0	13.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)