

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: P249391

Luminaire Tested: **LSR8B90D010 EC8B909727 8LBDW0GPH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249391
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: LSR8B90D010 EC8B909727 8LBDW0GPH
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
97 CRI 2700 CCT WITH GRAPHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6507.0 lumens
Efficiency: N/A
Efficacy: 75.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.26 / 1.18
Luminous Opening: Point Source (0' x 0' x 0')
CIE Type: Direct

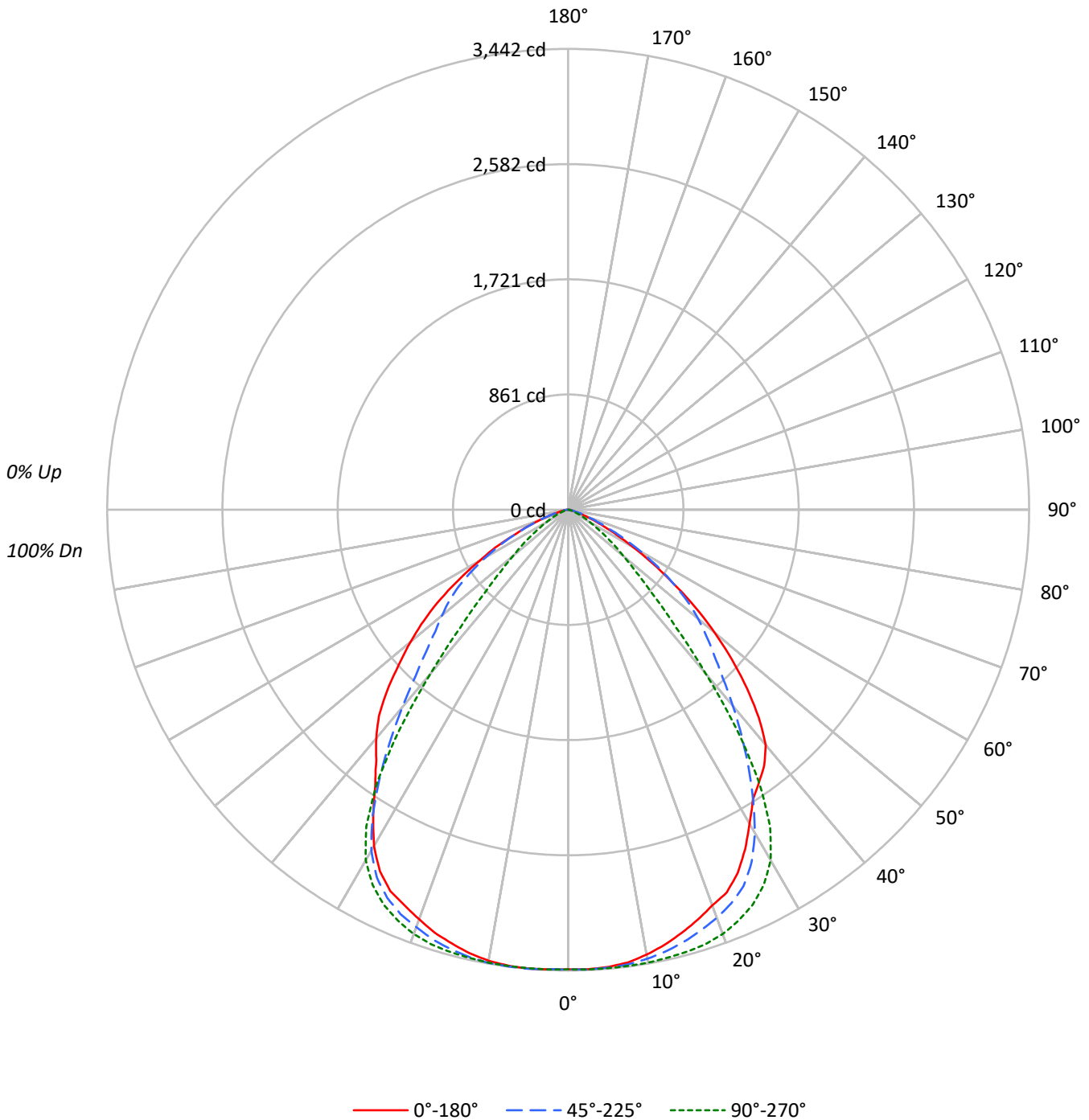
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	Luminaire represents a point source (luminous area is zero).		
5°	No luminance values can be calculated.		
10°			
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	327.7	5.0
10°-20°	951.5	14.6
20°-30°	1444.3	22.2
30°-40°	1516.9	23.3
40°-50°	1137.3	17.5
50°-60°	729.7	11.2
60°-70°	312.2	4.8
70°-80°	73.7	1.1
80°-90°	13.7	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°	2723.5	41.9
0°-40°	4240.4	65.2
0°-60°	6107.4	93.9
0°-90°	6507.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6507.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3433	3433	3433	3433	3433	
5°	3428	3433	3437	3442	3441	326
15°	3273	3341	3418	3396	3354	923
25°	2995	3100	3256	3197	3142	1368
35°	2484	2346	2486	2456	2512	1559
45°	1887	1542	886	1498	1913	1445
55°	955	955	330	995	1163	866
65°	288	339	105	437	444	307
75°	44	52	15	88	87	64
85°	15	9	7	15	20	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°	3433.2	3433.2	3433.2	3433.2	3433.2	3433.2	3433.2	3433.2	3433.2	3433.2	3433.2
2.5°	3435.1	3438.8	3436.9	3436.9	3435.1	3436.9	3436.9	3440.6	3440.6	3436.9	3435.1
5°	3427.7	3431.4	3431.4	3427.7	3427.7	3436.9	3431.4	3435.1	3435.1	3433.2	3433.2
7.5°	3411.1	3411.1	3418.5	3413.0	3413.0	3418.5	3416.6	3420.3	3424.0	3425.9	3425.9
10°	3374.2	3377.9	3379.8	3379.8	3381.6	3387.1	3390.8	3398.2	3401.9	3405.6	3407.4
12.5°	3328.2	3333.7	3335.6	3333.7	3339.2	3346.6	3355.8	3365.0	3370.6	3377.9	3383.5
15°	3272.9	3272.9	3276.6	3282.1	3285.8	3296.9	3306.1	3317.1	3331.9	3341.1	3350.3
17.5°	3212.1	3215.8	3221.3	3221.3	3228.7	3247.1	3252.6	3269.2	3285.8	3295.0	3313.5
20°	3145.8	3149.4	3155.0	3158.7	3167.9	3182.6	3193.7	3208.4	3226.8	3243.4	3261.8
22.5°	3094.1	3086.8	3090.4	3094.1	3103.4	3116.3	3129.2	3147.6	3166.0	3182.6	3201.0
25°	2994.6	2996.5	3002.0	3005.7	3016.8	3027.8	3042.5	3064.6	3081.2	3099.7	3119.9
27.5°	2860.1	2862.0	2871.2	2871.2	2880.4	2898.8	2908.0	2926.4	2948.6	2967.0	2991.0
30°	2707.2	2710.8	2710.8	2718.2	2723.7	2732.9	2742.1	2760.6	2771.6	2788.2	2821.4
32.5°	2567.1	2570.8	2568.9	2567.1	2561.6	2559.7	2557.9	2561.6	2565.3	2570.8	2583.7
35°	2484.2	2474.9	2467.6	2454.7	2439.9	2421.5	2404.9	2382.8	2362.5	2345.9	2327.5
37.5°	2404.9	2403.1	2392.0	2373.6	2344.1	2310.9	2272.2	2224.3	2176.4	2124.8	2075.1
40°	2294.3	2288.8	2279.6	2253.8	2220.6	2180.1	2128.5	2069.5	1992.1	1912.9	1831.8
42.5°	2106.4	2108.2	2097.2	2076.9	2045.6	2006.8	1953.4	1888.9	1806.0	1712.0	1607.0
45°	1887.1	1887.1	1883.4	1866.8	1844.7	1813.4	1772.8	1719.4	1638.3	1542.4	1430.0
47.5°	1658.6	1660.4	1654.9	1651.2	1642.0	1621.7	1592.2	1551.7	1494.6	1402.4	1290.0
50°	1426.4	1426.4	1435.6	1433.7	1433.7	1426.4	1413.5	1389.5	1339.8	1266.0	1161.0
52.5°	1194.2	1197.9	1203.4	1210.8	1220.0	1234.7	1220.0	1208.9	1177.6	1120.4	1030.2
55°	954.6	958.3	967.5	980.4	991.5	1006.2	1009.9	1009.9	993.3	954.6	886.4
57.5°	750.1	744.5	751.9	762.9	777.7	792.4	803.5	816.4	814.5	788.7	733.5
60°	563.9	565.8	571.3	582.4	593.4	606.3	621.0	632.1	637.6	624.7	589.7
62.5°	411.0	411.0	418.3	429.4	434.9	453.3	462.5	468.1	473.6	471.7	449.7
65°	287.5	291.2	294.9	300.4	305.9	316.9	322.5	333.5	337.2	339.1	322.5
67.5°	202.7	197.2	200.9	204.5	210.1	217.5	228.5	228.5	234.0	234.0	223.0
70°	129.0	129.0	130.9	136.4	140.1	141.9	145.6	149.3	154.8	153.0	153.0
72.5°	86.6	84.8	86.6	88.5	90.3	95.8	95.8	97.7	101.4	103.2	95.8
75°	44.2	46.1	49.7	47.9	53.4	49.7	51.6	57.1	55.3	51.6	51.6
77.5°	36.8	36.8	36.8	35.0	38.7	38.7	36.8	40.5	38.7	38.7	36.8
80°	25.8	27.6	25.8	23.9	25.8	23.9	23.9	23.9	23.9	23.9	22.1
82.5°	20.3	16.6	18.4	16.6	18.4	18.4	16.6	14.7	14.7	16.6	14.7
85°	14.7	11.0	12.9	12.9	11.0	11.0	11.0	11.0	11.0	9.2	9.2
87.5°	9.2	5.5	5.5	5.5	7.4	7.4	7.4	5.5	7.4	7.4	3.7
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°	3433.2	3433.2	3433.2	3433.2	3433.2	3433.2	3433.2	3433.2	3433.2	3433.2	3433.2
2.5°	3438.8	3436.9	3440.6	3438.8	3438.8	3436.9	3438.8	3436.9	3440.6	3433.2	3435.1
5°	3438.8	3435.1	3436.9	3438.8	3440.6	3436.9	3436.9	3436.9	3440.6	3436.9	3438.8
7.5°	3431.4	3429.5	3435.1	3438.8	3436.9	3435.1	3438.8	3436.9	3440.6	3438.8	3442.4
10°	3416.6	3418.5	3422.2	3427.7	3429.5	3431.4	3435.1	3435.1	3440.6	3433.2	3436.9
12.5°	3394.5	3401.9	3411.1	3414.8	3422.2	3422.2	3425.9	3427.7	3431.4	3429.5	3435.1
15°	3366.9	3376.1	3387.1	3396.4	3405.6	3411.1	3416.6	3418.5	3424.0	3418.5	3420.3
17.5°	3333.7	3344.8	3361.3	3372.4	3387.1	3392.7	3400.0	3403.7	3409.3	3405.6	3407.4
20°	3287.6	3300.6	3319.0	3335.6	3344.8	3357.6	3366.9	3372.4	3376.1	3372.4	3374.2
22.5°	3223.1	3241.6	3265.5	3278.4	3296.9	3307.9	3309.8	3322.7	3331.9	3322.7	3326.4
25°	3147.6	3166.0	3184.5	3212.1	3228.7	3241.6	3254.5	3256.3	3265.5	3263.7	3261.8
27.5°	3022.3	3046.2	3077.5	3099.7	3121.8	3142.1	3156.8	3160.5	3169.7	3166.0	3167.9
30°	2850.9	2876.7	2906.2	2941.2	2972.5	2992.8	3011.2	3024.1	3033.3	3027.8	3026.0
32.5°	2607.6	2633.4	2664.8	2699.8	2736.6	2766.1	2788.2	2804.8	2815.9	2812.2	2803.0
35°	2329.4	2336.7	2357.0	2384.7	2416.0	2447.3	2467.6	2486.0	2498.9	2502.6	2502.6
37.5°	2043.7	2019.8	2005.0	2005.0	2023.4	2036.3	2054.8	2065.8	2086.1	2093.5	2099.0
40°	1767.3	1712.0	1660.4	1621.7	1595.9	1594.1	1594.1	1599.6	1618.0	1642.0	1664.1
42.5°	1520.3	1431.9	1352.7	1280.8	1229.2	1199.7	1186.8	1188.7	1203.4	1225.5	1262.3
45°	1323.2	1212.6	1113.1	1026.5	956.4	910.4	888.3	886.4	897.5	923.2	963.8
47.5°	1170.2	1052.3	939.8	840.3	764.8	715.0	689.2	681.9	689.2	713.2	761.1
50°	1043.1	921.4	805.3	702.1	621.0	569.5	545.5	536.3	545.5	565.8	613.7
52.5°	925.1	799.8	691.1	591.6	504.9	460.7	434.9	429.4	434.9	458.9	497.6
55°	788.7	681.9	575.0	475.4	399.9	355.7	335.4	329.9	335.4	357.5	398.1
57.5°	654.2	562.1	468.1	377.8	313.3	274.6	256.2	248.8	261.7	276.4	324.3
60°	528.9	455.2	375.9	296.7	243.3	208.2	193.5	191.6	195.3	213.8	246.9
62.5°	414.7	353.8	291.2	226.7	182.4	167.7	149.3	147.4	151.1	162.2	188.0
65°	298.6	259.9	211.9	165.8	130.9	110.6	103.2	105.1	108.7	116.1	140.1
67.5°	208.2	180.6	147.4	116.1	90.3	81.1	73.7	71.9	73.7	86.6	99.5
70°	140.1	123.5	99.5	88.5	62.7	49.7	51.6	46.1	53.4	53.4	64.5
72.5°	92.1	81.1	66.3	51.6	44.2	35.0	35.0	33.2	36.8	38.7	47.9
75°	47.9	36.8	36.8	25.8	18.4	9.2	16.6	14.7	12.9	14.7	18.4
77.5°	33.2	27.6	25.8	20.3	18.4	14.7	14.7	14.7	14.7	16.6	18.4
80°	20.3	20.3	14.7	12.9	11.0	9.2	11.0	11.0	11.0	11.0	12.9
82.5°	12.9	11.0	11.0	9.2	9.2	7.4	7.4	7.4	7.4	7.4	11.0
85°	11.0	7.4	7.4	5.5	7.4	12.9	5.5	7.4	7.4	7.4	5.5
87.5°	3.7	5.5	5.5	5.5	3.7	1.8	3.7	5.5	5.5	9.2	7.4
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3433.2	3433.2	3433.2	3433.2	3433.2	3433.2	3433.2	3433.2	3433.2	3433.2	3433.2
2.5°	3438.8	3440.6	3440.6	3438.8	3438.8	3435.1	3442.4	3436.9	3438.8	3446.1	3440.6
5°	3442.4	3444.3	3444.3	3442.4	3442.4	3442.4	3444.3	3444.3	3442.4	3440.6	3444.3
7.5°	3449.8	3448.0	3448.0	3444.3	3444.3	3440.6	3444.3	3438.8	3442.4	3438.8	3444.3
10°	3440.6	3442.4	3440.6	3438.8	3438.8	3436.9	3436.9	3431.4	3433.2	3427.7	3431.4
12.5°	3435.1	3433.2	3433.2	3429.5	3425.9	3422.2	3420.3	3414.8	3414.8	3401.9	3407.4
15°	3420.3	3422.2	3416.6	3409.3	3405.6	3396.4	3392.7	3385.3	3377.9	3368.7	3370.6
17.5°	3407.4	3401.9	3394.5	3387.1	3372.4	3365.0	3357.6	3346.6	3342.9	3331.9	3328.2
20°	3368.7	3365.0	3355.8	3342.9	3333.7	3317.1	3309.8	3298.7	3289.5	3278.4	3272.9
22.5°	3319.0	3315.3	3304.2	3291.3	3276.6	3269.2	3261.8	3241.6	3232.3	3221.3	3219.4
25°	3256.3	3250.8	3239.7	3225.0	3217.6	3197.3	3190.0	3175.2	3171.6	3160.5	3158.7
27.5°	3160.5	3153.1	3140.2	3121.8	3108.9	3096.0	3088.6	3077.5	3073.9	3062.8	3061.0
30°	3016.8	3007.5	2981.7	2974.4	2952.2	2939.3	2939.3	2924.6	2926.4	2919.1	2919.1
32.5°	2790.1	2775.3	2755.0	2740.3	2725.6	2718.2	2718.2	2712.7	2716.4	2716.4	2720.1
35°	2489.7	2469.4	2458.3	2449.1	2449.1	2456.5	2478.6	2484.2	2495.2	2504.4	2511.8
37.5°	2104.5	2102.7	2115.6	2126.6	2154.3	2185.6	2224.3	2257.5	2288.8	2310.9	2333.0
40°	1688.0	1734.1	1771.0	1822.6	1864.9	1925.8	1995.8	2052.9	2106.4	2145.1	2185.6
42.5°	1317.6	1376.6	1454.0	1529.5	1605.1	1688.0	1780.2	1859.4	1929.5	1982.9	2025.3
45°	1026.5	1107.5	1201.6	1297.4	1395.0	1498.3	1594.1	1675.1	1748.9	1804.2	1846.5
47.5°	827.4	915.9	1022.8	1127.8	1238.4	1347.1	1454.0	1524.0	1584.8	1629.1	1667.8
50°	683.7	777.7	890.1	1009.9	1120.4	1229.2	1321.3	1389.5	1439.3	1478.0	1501.9
52.5°	571.3	670.8	790.6	910.4	1020.9	1120.4	1203.4	1255.0	1295.5	1323.2	1345.3
55°	471.7	567.6	680.0	792.4	901.2	995.1	1063.3	1102.0	1133.3	1149.9	1162.8
57.5°	385.2	473.6	576.8	680.0	774.0	851.4	904.9	943.5	958.3	971.2	969.3
60°	302.2	385.2	479.1	567.6	648.7	711.3	750.1	772.1	783.2	788.7	785.0
62.5°	237.7	313.3	385.2	462.5	521.5	575.0	611.8	611.8	617.3	619.2	624.7
65°	176.9	234.0	296.7	353.8	401.7	436.8	457.0	462.5	469.9	468.1	464.4
67.5°	130.9	173.2	219.3	261.7	294.9	316.9	331.7	344.6	342.8	339.1	337.2
70°	90.3	118.0	158.5	184.3	208.2	230.4	234.0	235.9	237.7	239.6	235.9
72.5°	62.7	82.9	105.1	127.2	141.9	151.1	160.3	162.2	162.2	162.2	160.3
75°	31.3	42.4	62.7	71.9	84.8	88.5	95.8	95.8	101.4	94.0	92.1
77.5°	27.6	33.2	44.2	51.6	57.1	62.7	64.5	70.0	68.2	64.5	66.3
80°	16.6	20.3	27.6	31.3	38.7	40.5	42.4	44.2	42.4	44.2	44.2
82.5°	12.9	14.7	18.4	18.4	23.9	23.9	25.8	25.8	27.6	27.6	27.6
85°	7.4	12.9	11.0	22.1	14.7	14.7	18.4	22.1	18.4	18.4	22.1
87.5°	7.4	7.4	5.5	7.4	7.4	7.4	9.2	11.0	11.0	12.9	11.0
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: P249391

CATALOG NUMBER: LSR8B90D010 EC8B909727 8LBDW0GPH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	3433.2	3433.2	3433.2	3433.2
2.5°	3438.8	3442.4	3436.9	3435.1
5°	3444.3	3444.3	3440.6	3440.6
7.5°	3444.3	3444.3	3438.8	3435.1
10°	3429.5	3429.5	3424.0	3420.3
12.5°	3401.9	3401.9	3400.0	3394.5
15°	3366.9	3366.9	3359.5	3354.0
17.5°	3319.0	3322.7	3313.5	3313.5
20°	3267.4	3265.5	3258.2	3254.5
22.5°	3213.9	3210.2	3208.4	3197.3
25°	3156.8	3153.1	3147.6	3142.1
27.5°	3059.1	3057.3	3051.7	3044.4
30°	2909.8	2908.0	2900.6	2900.6
32.5°	2716.4	2714.5	2707.2	2709.0
35°	2515.5	2522.9	2519.2	2511.8
37.5°	2347.8	2353.3	2357.0	2353.3
40°	2207.7	2224.3	2226.2	2229.9
42.5°	2058.5	2080.6	2088.0	2091.6
45°	1879.7	1900.0	1916.6	1912.9
47.5°	1697.2	1712.0	1726.7	1715.7
50°	1522.2	1531.4	1536.9	1536.9
52.5°	1356.4	1356.4	1354.5	1356.4
55°	1166.5	1166.5	1159.2	1162.8
57.5°	967.5	971.2	965.6	956.4
60°	783.2	774.0	770.3	764.8
62.5°	610.0	610.0	597.1	613.7
65°	457.0	451.5	446.0	444.1
67.5°	331.7	329.9	324.3	322.5
70°	234.0	226.7	224.8	221.1
72.5°	156.6	156.6	153.0	153.0
75°	95.8	86.6	84.8	86.6
77.5°	66.3	64.5	64.5	62.7
80°	44.2	42.4	46.1	40.5
82.5°	27.6	29.5	27.6	29.5
85°	18.4	22.1	20.3	20.3
87.5°	11.0	11.0	11.0	11.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)