

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: P249580

Luminaire Tested: **LSR8B90D010 EC8B90935 8LBDW0MW**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249580
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 EC8B90935 8LBDW0MW
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
90 CRI 3500 CCT WITH MATTE WHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8061.0 lumens
Efficiency: N/A
Efficacy: 93.6 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

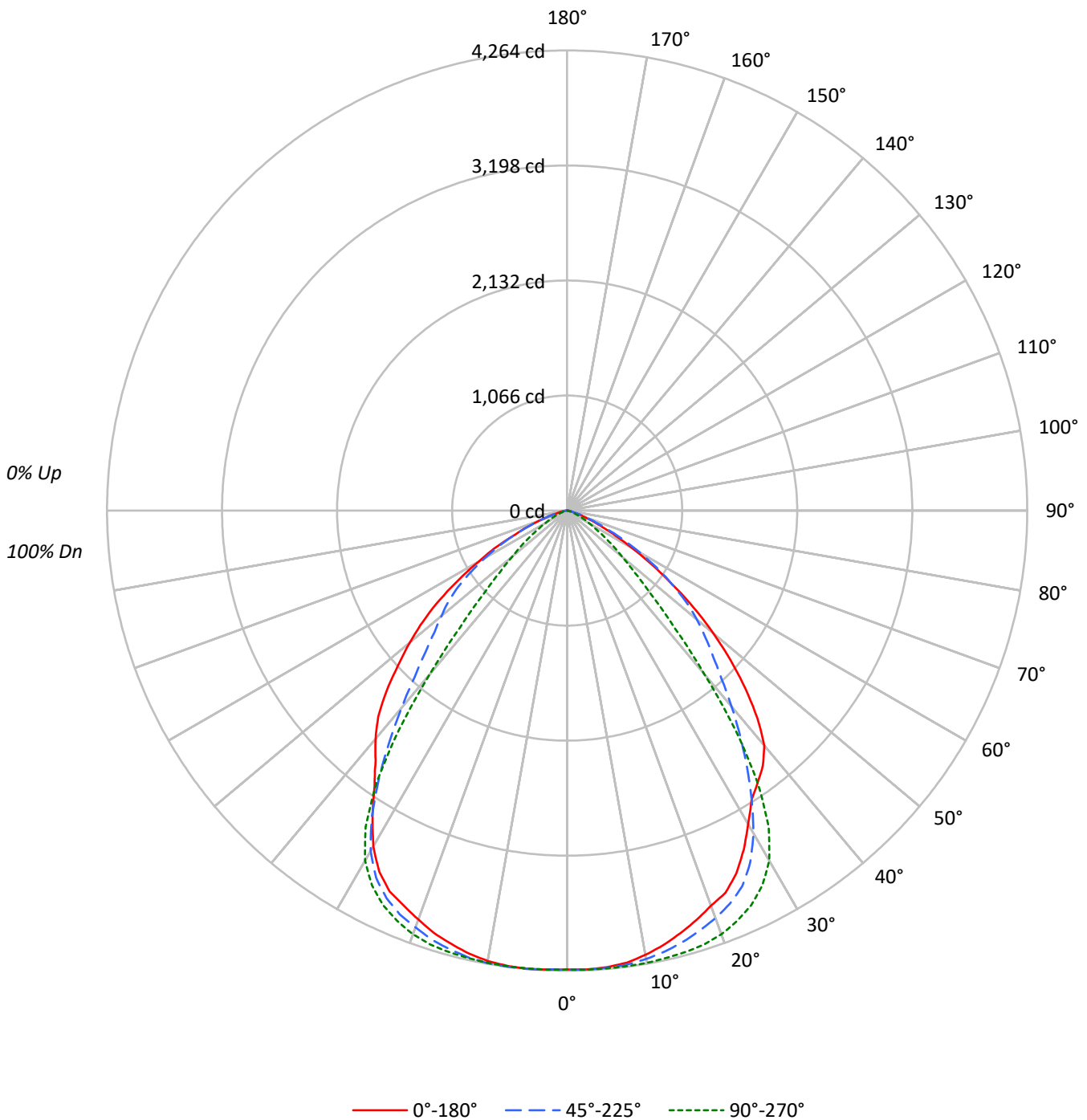
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	131150	131150	131150
5°	131440	131793	131936
10°	130887	133245	132675
15°	129436	135195	132645
20°	127881	137096	132302
25°	126223	137253	132439
30°	119414	133393	127949
35°	115850	115933	117137
40°	114414	79767	111198
45°	101949	47887	103341
50°	84768	31868	91340
55°	63578	21972	77443
60°	43084	14641	58429
65°	25990	9500	40145
70°	14407	5148	24695
75°	6529	2180	12784
80°	5683	2433	8914
85°	6475	3220	8881



TEST NUMBER: P249580

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	405.9	5.0
10°-20°	1178.8	14.6
20°-30°	1789.2	22.2
30°-40°	1879.2	23.3
40°-50°	1408.9	17.5
50°-60°	904.0	11.2
60°-70°	386.7	4.8
70°-80°	91.4	1.1
80°-90°	17.0	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°	3373.9	41.9
0°-40°	5253.1	65.2
0°-60°	7565.9	93.9
0°-90°	8061.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8061.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4253	4253	4253	4253	4253	
5°	4246	4253	4258	4264	4262	403
15°	4054	4139	4235	4208	4155	1144
25°	3710	3840	4034	3961	3892	1695
35°	3078	2906	3080	3043	3112	1931
45°	2338	1911	1098	1856	2370	1790
55°	1183	1183	409	1233	1440	1073
65°	356	420	130	541	550	380
75°	55	64	18	110	107	80
85°	18	11	9	18	25	19
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°	4253.1	4253.1	4253.1	4253.1	4253.1	4253.1	4253.1	4253.1	4253.1	4253.1	4253.1
2.5°	4255.4	4260.0	4257.7	4257.7	4255.4	4257.7	4257.7	4262.3	4262.3	4257.7	4255.4
5°	4246.3	4250.9	4250.9	4246.3	4246.3	4257.7	4250.9	4255.4	4255.4	4253.1	4253.1
7.5°	4225.8	4225.8	4234.9	4228.1	4228.1	4234.9	4232.6	4237.2	4241.7	4244.0	4244.0
10°	4180.1	4184.7	4186.9	4186.9	4189.2	4196.1	4200.6	4209.8	4214.3	4218.9	4221.2
12.5°	4123.0	4129.9	4132.1	4129.9	4136.7	4145.8	4157.3	4168.7	4175.6	4184.7	4191.5
15°	4054.5	4054.5	4059.1	4066.0	4070.5	4084.2	4095.6	4109.3	4127.6	4139.0	4150.4
17.5°	3979.2	3983.8	3990.6	3990.6	3999.8	4022.6	4029.4	4050.0	4070.5	4081.9	4104.8
20°	3897.0	3901.6	3908.4	3913.0	3924.4	3942.7	3956.4	3974.6	3997.5	4018.0	4040.8
22.5°	3833.1	3824.0	3828.5	3833.1	3844.5	3860.5	3876.5	3899.3	3922.1	3942.7	3965.5
25°	3709.8	3712.1	3718.9	3723.5	3737.2	3750.9	3769.2	3796.5	3817.1	3839.9	3865.0
27.5°	3543.2	3545.4	3556.8	3556.8	3568.2	3591.1	3602.5	3625.3	3652.8	3675.5	3705.3
30°	3353.7	3358.2	3358.2	3367.4	3374.2	3385.6	3397.0	3419.9	3433.6	3454.1	3495.2
32.5°	3180.2	3184.7	3182.4	3180.2	3173.3	3171.0	3168.7	3173.3	3177.9	3184.7	3200.7
35°	3077.5	3066.0	3056.9	3040.9	3022.7	2999.8	2979.2	2951.9	2926.7	2906.2	2883.4
37.5°	2979.2	2977.0	2963.3	2940.4	2903.9	2862.8	2814.9	2755.5	2696.2	2632.2	2570.6
40°	2842.3	2835.4	2824.0	2792.1	2750.9	2700.7	2636.8	2563.8	2467.9	2369.7	2269.3
42.5°	2609.4	2611.7	2598.0	2572.9	2534.1	2486.1	2419.9	2340.0	2237.3	2120.8	1990.7
45°	2337.8	2337.8	2333.2	2312.6	2285.2	2246.4	2196.2	2130.0	2029.6	1910.8	1771.6
47.5°	2054.7	2056.9	2050.1	2045.5	2034.1	2009.0	1972.5	1922.3	1851.5	1737.3	1598.1
50°	1767.0	1767.0	1778.4	1776.1	1776.1	1767.0	1751.0	1721.3	1659.7	1568.4	1438.3
52.5°	1479.3	1483.9	1490.8	1499.9	1511.3	1529.6	1511.3	1497.6	1458.8	1388.0	1276.2
55°	1182.6	1187.1	1198.5	1214.5	1228.3	1246.5	1251.0	1251.0	1230.5	1182.6	1098.1
57.5°	929.2	922.3	931.5	945.2	963.4	981.7	995.4	1011.3	1009.1	977.1	908.6
60°	698.6	700.9	707.7	721.4	735.1	751.1	769.4	783.0	789.9	773.9	730.5
62.5°	509.1	509.1	518.2	531.9	538.8	561.6	573.0	579.9	586.7	584.4	557.0
65°	356.2	360.7	365.3	372.1	379.0	392.6	399.5	413.2	417.8	420.1	399.5
67.5°	251.1	244.3	248.9	253.4	260.3	269.4	283.1	283.1	289.9	289.9	276.2
70°	159.8	159.8	162.1	168.9	173.5	175.8	180.4	184.9	191.8	189.5	189.5
72.5°	107.3	105.0	107.3	109.6	111.9	118.7	118.7	121.0	125.6	127.9	118.7
75°	54.8	57.1	61.6	59.4	66.2	61.6	63.9	70.8	68.5	63.9	63.9
77.5°	45.6	45.6	45.6	43.4	47.9	47.9	45.6	50.2	47.9	47.9	45.6
80°	32.0	34.2	32.0	29.7	32.0	29.7	29.7	29.7	29.7	29.7	27.4
82.5°	25.1	20.6	22.8	20.6	22.8	22.8	20.6	18.3	18.3	20.6	18.3
85°	18.3	13.7	16.0	16.0	13.7	13.7	13.7	13.7	13.7	11.4	11.4
87.5°	11.4	6.9	6.9	6.9	9.1	9.1	9.1	6.9	9.1	9.1	4.6
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: P249580

CATALOG NUMBER: LSR8B90D010 EC8B90935 8LBDW0MW

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4253.1	4253.1	4253.1	4253.1	4253.1	4253.1	4253.1	4253.1	4253.1	4253.1	4253.1
2.5°	4260.0	4257.7	4262.3	4260.0	4260.0	4257.7	4260.0	4257.7	4262.3	4253.1	4255.4
5°	4260.0	4255.4	4257.7	4260.0	4262.3	4257.7	4257.7	4257.7	4262.3	4257.7	4260.0
7.5°	4250.9	4248.6	4255.4	4260.0	4257.7	4255.4	4260.0	4257.7	4262.3	4260.0	4264.5
10°	4232.6	4234.9	4239.5	4246.3	4248.6	4250.9	4255.4	4255.4	4262.3	4253.1	4257.7
12.5°	4205.2	4214.3	4225.8	4230.3	4239.5	4239.5	4244.0	4246.3	4250.9	4248.6	4255.4
15°	4171.0	4182.4	4196.1	4207.5	4218.9	4225.8	4232.6	4234.9	4241.7	4234.9	4237.2
17.5°	4129.9	4143.5	4164.1	4177.8	4196.1	4202.9	4212.0	4216.6	4223.5	4218.9	4221.2
20°	4072.8	4088.8	4111.6	4132.1	4143.5	4159.5	4171.0	4177.8	4182.4	4177.8	4180.1
22.5°	3992.9	4015.7	4045.4	4061.4	4084.2	4097.9	4100.2	4116.2	4127.6	4116.2	4120.8
25°	3899.3	3922.1	3945.0	3979.2	3999.8	4015.7	4031.7	4034.0	4045.4	4043.1	4040.8
27.5°	3744.0	3773.7	3812.5	3839.9	3867.3	3892.5	3910.7	3915.2	3926.7	3922.1	3924.4
30°	3531.7	3563.7	3600.2	3643.6	3682.4	3707.5	3730.3	3746.3	3757.7	3750.9	3748.6
32.5°	3230.4	3262.3	3301.2	3344.5	3390.2	3426.7	3454.1	3474.7	3488.4	3483.8	3472.4
35°	2885.7	2894.8	2919.9	2954.2	2992.9	3031.8	3056.9	3079.7	3095.7	3100.2	3100.2
37.5°	2531.8	2502.1	2483.9	2483.9	2506.7	2522.6	2545.5	2559.2	2584.3	2593.4	2600.3
40°	2189.3	2120.8	2056.9	2009.0	1977.1	1974.8	1974.8	1981.6	2004.4	2034.1	2061.5
42.5°	1883.4	1773.8	1675.7	1586.7	1522.7	1486.2	1470.2	1472.5	1490.8	1518.2	1563.8
45°	1639.2	1502.2	1378.9	1271.6	1184.9	1127.8	1100.4	1098.1	1111.8	1143.7	1194.0
47.5°	1449.7	1303.6	1164.3	1041.0	947.4	885.8	853.8	844.7	853.8	883.5	942.9
50°	1292.2	1141.5	997.7	869.8	769.4	705.5	675.7	664.3	675.7	700.9	760.2
52.5°	1146.0	990.8	856.1	732.8	625.5	570.7	538.8	531.9	538.8	568.4	616.4
55°	977.1	844.7	712.3	589.0	495.4	440.6	415.5	408.7	415.5	442.9	493.1
57.5°	810.5	696.3	579.9	468.0	388.1	340.1	317.3	308.2	324.2	342.4	401.8
60°	655.2	563.9	465.7	367.6	301.4	258.0	239.7	237.4	242.0	264.8	305.9
62.5°	513.7	438.3	360.7	280.8	226.0	207.7	184.9	182.7	187.2	200.9	232.9
65°	369.9	321.9	262.5	205.5	162.1	137.0	127.9	130.2	134.7	143.8	173.5
67.5°	258.0	223.7	182.7	143.8	111.9	100.4	91.3	89.0	91.3	107.3	123.3
70°	173.5	152.9	123.3	109.6	77.6	61.6	63.9	57.1	66.2	66.2	79.9
72.5°	114.1	100.4	82.2	63.9	54.8	43.4	43.4	41.1	45.6	47.9	59.4
75°	59.4	45.6	45.6	32.0	22.8	11.4	20.6	18.3	16.0	18.3	22.8
77.5°	41.1	34.2	32.0	25.1	22.8	18.3	18.3	18.3	18.3	20.6	22.8
80°	25.1	25.1	18.3	16.0	13.7	11.4	13.7	13.7	13.7	13.7	16.0
82.5°	16.0	13.7	13.7	11.4	11.4	9.1	9.1	9.1	9.1	9.1	13.7
85°	13.7	9.1	9.1	6.9	9.1	16.0	6.9	9.1	9.1	9.1	6.9
87.5°	4.6	6.9	6.9	6.9	4.6	2.3	4.6	6.9	6.9	11.4	9.1
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: P249580

CATALOG NUMBER: LSR8B90D010 EC8B90935 8LBDW0MW

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	4253.1	4253.1	4253.1	4253.1	4253.1	4253.1	4253.1	4253.1	4253.1	4253.1	4253.1
2.5°	4260.0	4262.3	4262.3	4260.0	4260.0	4255.4	4264.5	4257.7	4260.0	4269.1	4262.3
5°	4264.5	4266.8	4266.8	4264.5	4264.5	4264.5	4266.8	4266.8	4264.5	4262.3	4266.8
7.5°	4273.7	4271.4	4271.4	4266.8	4266.8	4262.3	4266.8	4260.0	4264.5	4260.0	4266.8
10°	4262.3	4264.5	4262.3	4260.0	4260.0	4257.7	4257.7	4250.9	4253.1	4246.3	4250.9
12.5°	4255.4	4253.1	4253.1	4248.6	4244.0	4239.5	4237.2	4230.3	4230.3	4214.3	4221.2
15°	4237.2	4239.5	4232.6	4223.5	4218.9	4207.5	4202.9	4193.8	4184.7	4173.3	4175.6
17.5°	4221.2	4214.3	4205.2	4196.1	4177.8	4168.7	4159.5	4145.8	4141.3	4127.6	4123.0
20°	4173.3	4168.7	4157.3	4141.3	4129.9	4109.3	4100.2	4086.5	4075.1	4061.4	4054.5
22.5°	4111.6	4107.0	4093.3	4077.4	4059.1	4050.0	4040.8	4015.7	4004.3	3990.6	3988.3
25°	4034.0	4027.1	4013.4	3995.2	3986.0	3960.9	3951.8	3933.5	3929.0	3915.2	3913.0
27.5°	3915.2	3906.1	3890.2	3867.3	3851.3	3835.4	3826.3	3812.5	3808.0	3794.3	3792.0
30°	3737.2	3725.8	3693.8	3684.7	3657.3	3641.3	3641.3	3623.0	3625.3	3616.2	3616.2
32.5°	3456.4	3438.1	3413.0	3394.7	3376.5	3367.4	3367.4	3360.5	3365.1	3365.1	3369.7
35°	3084.3	3059.2	3045.4	3034.0	3034.0	3043.2	3070.6	3077.5	3091.1	3102.5	3111.7
37.5°	2607.1	2604.9	2620.8	2634.5	2668.8	2707.6	2755.5	2796.6	2835.4	2862.8	2890.2
40°	2091.2	2148.3	2193.9	2257.9	2310.3	2385.7	2472.4	2543.2	2609.4	2657.4	2707.6
42.5°	1632.3	1705.4	1801.3	1894.8	1988.5	2091.2	2205.4	2303.5	2390.3	2456.5	2509.0
45°	1271.6	1372.0	1488.5	1607.2	1728.2	1856.1	1974.8	2075.2	2166.5	2235.0	2287.5
47.5°	1025.0	1134.6	1267.0	1397.2	1534.1	1668.8	1801.3	1888.0	1963.3	2018.1	2066.1
50°	847.0	963.4	1102.7	1251.0	1388.0	1522.7	1636.9	1721.3	1783.0	1830.9	1860.6
52.5°	707.7	831.0	979.4	1127.8	1264.7	1388.0	1490.8	1554.7	1604.9	1639.2	1666.5
55°	584.4	703.2	842.4	981.7	1116.4	1232.8	1317.2	1365.2	1404.0	1424.5	1440.5
57.5°	477.2	586.7	714.6	842.4	958.8	1054.8	1120.9	1168.9	1187.1	1203.1	1200.8
60°	374.4	477.2	593.6	703.2	803.6	881.2	929.2	956.6	970.2	977.1	972.5
62.5°	294.5	388.1	477.2	573.0	646.1	712.3	758.0	758.0	764.8	767.1	773.9
65°	219.1	289.9	367.6	438.3	497.7	541.1	566.2	573.0	582.2	579.9	575.3
67.5°	162.1	214.6	271.6	324.2	365.3	392.6	410.9	426.9	424.6	420.1	417.8
70°	111.9	146.1	196.3	228.3	258.0	285.4	289.9	292.2	294.5	296.8	292.2
72.5°	77.6	102.7	130.2	157.5	175.8	187.2	198.6	200.9	200.9	200.9	198.6
75°	38.8	52.5	77.6	89.0	105.0	109.6	118.7	118.7	125.6	116.4	114.1
77.5°	34.2	41.1	54.8	63.9	70.8	77.6	79.9	86.8	84.5	79.9	82.2
80°	20.6	25.1	34.2	38.8	47.9	50.2	52.5	54.8	52.5	54.8	54.8
82.5°	16.0	18.3	22.8	22.8	29.7	29.7	32.0	32.0	34.2	34.2	34.2
85°	9.1	16.0	13.7	27.4	18.3	18.3	22.8	27.4	22.8	22.8	27.4
87.5°	9.1	9.1	6.9	9.1	9.1	9.1	11.4	13.7	13.7	16.0	13.7
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: P249580

CATALOG NUMBER: LSR8B90D010 EC8B90935 8LBDW0MW

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4253.1	4253.1	4253.1	4253.1
2.5°	4260.0	4264.5	4257.7	4255.4
5°	4266.8	4266.8	4262.3	4262.3
7.5°	4266.8	4266.8	4260.0	4255.4
10°	4248.6	4248.6	4241.7	4237.2
12.5°	4214.3	4214.3	4212.0	4205.2
15°	4171.0	4171.0	4161.8	4155.0
17.5°	4111.6	4116.2	4104.8	4104.8
20°	4047.7	4045.4	4036.3	4031.7
22.5°	3981.5	3976.9	3974.6	3960.9
25°	3910.7	3906.1	3899.3	3892.5
27.5°	3789.7	3787.4	3780.6	3771.5
30°	3604.8	3602.5	3593.4	3593.4
32.5°	3365.1	3362.8	3353.7	3356.0
35°	3116.2	3125.4	3120.8	3111.7
37.5°	2908.5	2915.3	2919.9	2915.3
40°	2735.0	2755.5	2757.8	2762.4
42.5°	2550.1	2577.4	2586.6	2591.1
45°	2328.6	2353.7	2374.3	2369.7
47.5°	2102.6	2120.8	2139.1	2125.4
50°	1885.7	1897.1	1904.0	1904.0
52.5°	1680.3	1680.3	1678.0	1680.3
55°	1445.1	1445.1	1436.0	1440.5
57.5°	1198.5	1203.1	1196.2	1184.9
60°	970.2	958.8	954.3	947.4
62.5°	755.7	755.7	739.7	760.2
65°	566.2	559.3	552.5	550.2
67.5°	410.9	408.7	401.8	399.5
70°	289.9	280.8	278.5	273.9
72.5°	194.1	194.1	189.5	189.5
75°	118.7	107.3	105.0	107.3
77.5°	82.2	79.9	79.9	77.6
80°	54.8	52.5	57.1	50.2
82.5°	34.2	36.5	34.2	36.5
85°	22.8	27.4	25.1	25.1
87.5°	13.7	13.7	13.7	13.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)