

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: P249265

Luminaire Tested: **LSR8B90D010 EC8B90940 8LBDW0WMH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249265
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 EC8B90940 8LBDW0WMH
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
90 CRI 4000 CCT WITH WARM HAZE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8470.0 lumens
Efficiency: N/A
Efficacy: 98.4 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

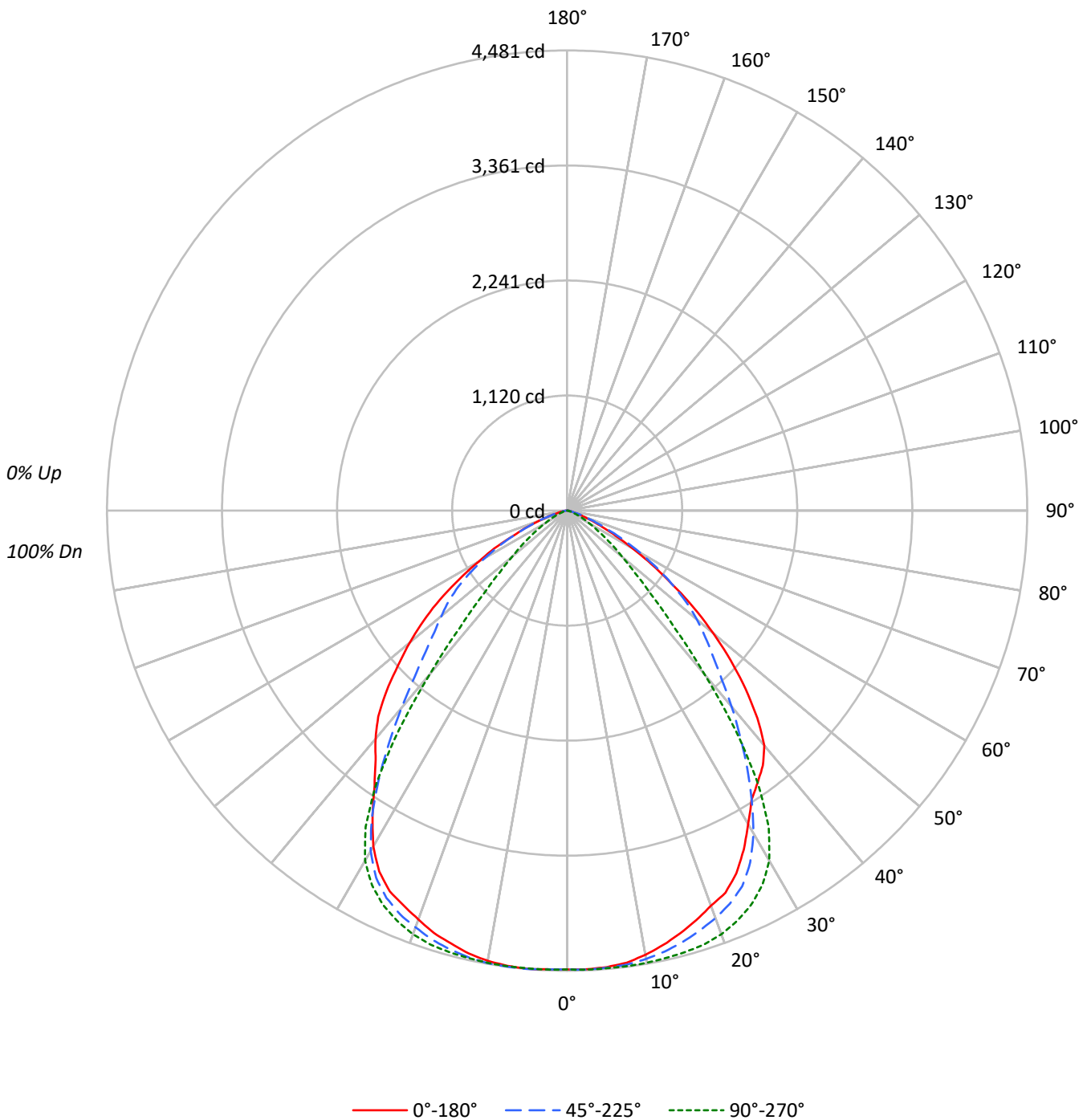
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	137804	137804	137804
5°	138108	138482	138631
10°	137529	140005	139407
15°	136003	142053	139374
20°	134372	144053	139016
25°	132626	144218	139155
30°	125471	140162	134440
35°	121726	121813	123081
40°	120218	83813	116841
45°	107121	50316	108582
50°	89071	33490	95974
55°	66804	23085	81373
60°	45268	15387	61395
65°	27303	9982	42181
70°	15138	5410	25948
75°	6863	2288	13439
80°	5967	2557	9376
85°	6793	3397	9341



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	426.5	5.0
10°-20°	1238.6	14.6
20°-30°	1880.0	22.2
30°-40°	1974.5	23.3
40°-50°	1480.4	17.5
50°-60°	949.8	11.2
60°-70°	406.3	4.8
70°-80°	96.0	1.1
80°-90°	17.9	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°	3545.1	41.9
0°-40°	5519.6	65.2
0°-60°	7949.8	93.9
0°-90°	8470.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8470.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4469	4469	4469	4469	4469	
5°	4462	4469	4474	4481	4479	424
15°	4260	4349	4450	4421	4366	1202
25°	3898	4035	4239	4162	4090	1781
35°	3234	3054	3236	3198	3270	2029
45°	2456	2008	1154	1950	2490	1881
55°	1243	1243	429	1295	1514	1127
65°	374	441	137	568	578	399
75°	58	67	19	115	113	84
85°	19	12	10	19	26	20
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°	4468.9	4468.9	4468.9	4468.9	4468.9	4468.9	4468.9	4468.9	4468.9	4468.9	4468.9
2.5°	4471.3	4476.2	4473.8	4473.8	4471.3	4473.8	4473.8	4478.6	4478.6	4473.8	4471.3
5°	4461.7	4466.5	4466.5	4461.7	4461.7	4473.8	4466.5	4471.3	4471.3	4468.9	4468.9
7.5°	4440.2	4440.2	4449.7	4442.6	4442.6	4449.7	4447.3	4452.2	4457.0	4459.4	4459.4
10°	4392.2	4397.0	4399.4	4399.4	4401.8	4409.0	4413.8	4423.4	4428.1	4433.0	4435.4
12.5°	4332.2	4339.4	4341.8	4339.4	4346.6	4356.2	4368.2	4380.2	4387.4	4397.0	4404.2
15°	4260.2	4260.2	4265.0	4272.3	4277.1	4291.4	4303.4	4317.8	4337.0	4349.0	4361.0
17.5°	4181.1	4185.9	4193.1	4193.1	4202.7	4226.6	4233.9	4255.5	4277.1	4289.0	4313.0
20°	4094.8	4099.5	4106.7	4111.5	4123.5	4142.7	4157.1	4176.3	4200.3	4221.9	4245.8
22.5°	4027.6	4018.0	4022.7	4027.6	4039.6	4056.4	4073.2	4097.1	4121.1	4142.7	4166.7
25°	3898.0	3900.4	3907.6	3912.4	3926.8	3941.2	3960.4	3989.2	4010.8	4034.8	4061.1
27.5°	3722.9	3725.3	3737.3	3737.3	3749.3	3773.3	3785.3	3809.3	3838.1	3862.0	3893.3
30°	3523.8	3528.6	3528.6	3538.2	3545.4	3557.4	3569.4	3593.4	3607.8	3629.4	3672.6
32.5°	3341.5	3346.3	3343.9	3341.5	3334.3	3331.9	3329.5	3334.3	3339.1	3346.3	3363.1
35°	3233.6	3221.6	3212.0	3195.2	3176.0	3152.0	3130.4	3101.6	3075.2	3053.6	3029.7
37.5°	3130.4	3128.0	3113.6	3089.6	3051.2	3008.1	2957.7	2895.3	2832.9	2765.8	2701.1
40°	2986.5	2979.3	2967.3	2933.7	2890.5	2837.8	2770.6	2693.8	2593.1	2489.9	2384.4
42.5°	2741.8	2744.2	2729.8	2703.4	2662.7	2612.3	2542.7	2458.8	2350.8	2228.5	2091.8
45°	2456.4	2456.4	2451.6	2430.0	2401.2	2360.4	2307.6	2238.1	2132.5	2007.8	1861.4
47.5°	2158.9	2161.3	2154.1	2149.3	2137.3	2110.9	2072.6	2019.8	1945.4	1825.5	1679.1
50°	1856.7	1856.7	1868.7	1866.2	1866.2	1856.7	1839.9	1808.7	1743.9	1648.0	1511.3
52.5°	1554.4	1559.2	1566.4	1576.0	1588.0	1607.2	1588.0	1573.6	1532.8	1458.4	1340.9
55°	1242.6	1247.4	1259.3	1276.1	1290.6	1309.8	1314.5	1314.5	1292.9	1242.6	1153.8
57.5°	976.3	969.1	978.7	993.1	1012.3	1031.5	1045.9	1062.7	1060.3	1026.7	954.7
60°	734.0	736.4	743.6	758.0	772.4	789.2	808.4	822.8	830.0	813.2	767.6
62.5°	534.9	534.9	544.5	558.9	566.1	590.1	602.1	609.3	616.5	614.1	585.3
65°	374.2	379.0	383.8	391.0	398.2	412.6	419.8	434.2	439.0	441.4	419.8
67.5°	263.9	256.7	261.5	266.2	273.5	283.1	297.5	297.5	304.6	304.6	290.2
70°	167.9	167.9	170.3	177.5	182.3	184.7	189.5	194.3	201.5	199.1	199.1
72.5°	112.8	110.3	112.8	115.2	117.6	124.7	124.7	127.1	131.9	134.4	124.7
75°	57.6	60.0	64.7	62.4	69.6	64.7	67.1	74.4	72.0	67.1	67.1
77.5°	48.0	48.0	48.0	45.6	50.4	50.4	48.0	52.8	50.4	50.4	48.0
80°	33.6	36.0	33.6	31.2	33.6	31.2	31.2	31.2	31.2	31.2	28.8
82.5°	26.4	21.6	24.0	21.6	24.0	24.0	21.6	19.2	19.2	21.6	19.2
85°	19.2	14.4	16.8	16.8	14.4	14.4	14.4	14.4	14.4	12.0	12.0
87.5°	12.0	7.2	7.2	7.2	9.6	9.6	9.6	7.2	9.6	9.6	4.8
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°	4468.9	4468.9	4468.9	4468.9	4468.9	4468.9	4468.9	4468.9	4468.9	4468.9	4468.9
2.5°	4476.2	4473.8	4478.6	4476.2	4476.2	4473.8	4476.2	4473.8	4478.6	4468.9	4471.3
5°	4476.2	4471.3	4473.8	4476.2	4478.6	4473.8	4473.8	4473.8	4478.6	4473.8	4476.2
7.5°	4466.5	4464.1	4471.3	4476.2	4473.8	4471.3	4476.2	4473.8	4478.6	4476.2	4480.9
10°	4447.3	4449.7	4454.6	4461.7	4464.1	4466.5	4471.3	4471.3	4478.6	4468.9	4473.8
12.5°	4418.6	4428.1	4440.2	4444.9	4454.6	4454.6	4459.4	4461.7	4466.5	4464.1	4471.3
15°	4382.6	4394.6	4409.0	4421.0	4433.0	4440.2	4447.3	4449.7	4457.0	4449.7	4452.2
17.5°	4339.4	4353.8	4375.4	4389.8	4409.0	4416.2	4425.7	4430.6	4437.8	4433.0	4435.4
20°	4279.4	4296.3	4320.2	4341.8	4353.8	4370.6	4382.6	4389.8	4394.6	4389.8	4392.2
22.5°	4195.5	4219.5	4250.7	4267.4	4291.4	4305.8	4308.2	4325.0	4337.0	4325.0	4329.8
25°	4097.1	4121.1	4145.1	4181.1	4202.7	4219.5	4236.3	4238.7	4250.7	4248.2	4245.8
27.5°	3934.0	3965.2	4006.0	4034.8	4063.5	4089.9	4109.1	4113.9	4125.9	4121.1	4123.5
30°	3710.9	3744.5	3782.9	3828.5	3869.3	3895.6	3919.6	3936.4	3948.4	3941.2	3938.8
32.5°	3394.3	3427.9	3468.7	3514.2	3562.2	3600.6	3629.4	3651.0	3665.4	3660.5	3648.6
35°	3032.1	3041.7	3068.1	3104.1	3144.8	3185.6	3212.0	3235.9	3252.7	3257.5	3257.5
37.5°	2660.3	2629.1	2609.9	2609.9	2633.9	2650.6	2674.6	2689.0	2715.4	2725.0	2732.2
40°	2300.4	2228.5	2161.3	2110.9	2077.4	2075.0	2075.0	2082.1	2106.1	2137.3	2166.1
42.5°	1979.0	1863.8	1760.7	1667.2	1600.0	1561.6	1544.8	1547.2	1566.4	1595.2	1643.2
45°	1722.3	1578.4	1448.9	1336.1	1245.0	1185.0	1156.2	1153.8	1168.2	1201.8	1254.6
47.5°	1523.2	1369.7	1223.4	1093.8	995.5	930.7	897.1	887.6	897.1	928.3	990.7
50°	1357.7	1199.4	1048.3	913.9	808.4	741.3	710.0	698.1	710.0	736.4	798.8
52.5°	1204.2	1041.1	899.6	770.0	657.3	599.7	566.1	558.9	566.1	597.3	647.7
55°	1026.7	887.6	748.4	618.9	520.6	463.0	436.6	429.4	436.6	465.4	518.2
57.5°	851.6	731.6	609.3	491.7	407.8	357.4	333.4	323.8	340.6	359.8	422.2
60°	688.4	592.5	489.3	386.2	316.7	271.1	251.9	249.5	254.3	278.3	321.4
62.5°	539.8	460.6	379.0	295.1	237.5	218.3	194.3	191.9	196.7	211.1	244.7
65°	388.6	338.3	275.9	215.9	170.3	143.9	134.4	136.8	141.5	151.1	182.3
67.5°	271.1	235.1	191.9	151.1	117.6	105.5	96.0	93.6	96.0	112.8	129.5
70°	182.3	160.7	129.5	115.2	81.6	64.7	67.1	60.0	69.6	69.6	83.9
72.5°	119.9	105.5	86.3	67.1	57.6	45.6	45.6	43.2	48.0	50.4	62.4
75°	62.4	48.0	48.0	33.6	24.0	12.0	21.6	19.2	16.8	19.2	24.0
77.5°	43.2	36.0	33.6	26.4	24.0	19.2	19.2	19.2	19.2	21.6	24.0
80°	26.4	26.4	19.2	16.8	14.4	12.0	14.4	14.4	14.4	14.4	16.8
82.5°	16.8	14.4	14.4	12.0	12.0	9.6	9.6	9.6	9.6	9.6	14.4
85°	14.4	9.6	9.6	7.2	9.6	16.8	7.2	9.6	9.6	9.6	7.2
87.5°	4.8	7.2	7.2	7.2	4.8	2.4	4.8	7.2	7.2	12.0	9.6
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°	4468.9	4468.9	4468.9	4468.9	4468.9	4468.9	4468.9	4468.9	4468.9	4468.9	4468.9
2.5°	4476.2	4478.6	4478.6	4476.2	4476.2	4471.3	4480.9	4473.8	4476.2	4485.7	4478.6
5°	4480.9	4483.3	4483.3	4480.9	4480.9	4480.9	4483.3	4483.3	4480.9	4478.6	4483.3
7.5°	4490.5	4488.1	4488.1	4483.3	4483.3	4478.6	4483.3	4476.2	4480.9	4476.2	4483.3
10°	4478.6	4480.9	4478.6	4476.2	4476.2	4473.8	4473.8	4466.5	4468.9	4461.7	4466.5
12.5°	4471.3	4468.9	4468.9	4464.1	4459.4	4454.6	4452.2	4444.9	4444.9	4428.1	4435.4
15°	4452.2	4454.6	4447.3	4437.8	4433.0	4421.0	4416.2	4406.5	4397.0	4385.0	4387.4
17.5°	4435.4	4428.1	4418.6	4409.0	4389.8	4380.2	4370.6	4356.2	4351.4	4337.0	4332.2
20°	4385.0	4380.2	4368.2	4351.4	4339.4	4317.8	4308.2	4293.9	4281.8	4267.4	4260.2
22.5°	4320.2	4315.4	4301.0	4284.2	4265.0	4255.5	4245.8	4219.5	4207.5	4193.1	4190.7
25°	4238.7	4231.5	4217.1	4197.9	4188.3	4161.9	4152.3	4133.1	4128.3	4113.9	4111.5
27.5°	4113.9	4104.3	4087.5	4063.5	4046.7	4030.0	4020.4	4006.0	4001.2	3986.8	3984.4
30°	3926.8	3914.8	3881.2	3871.7	3842.8	3826.1	3826.1	3806.9	3809.3	3799.7	3799.7
32.5°	3631.8	3612.6	3586.2	3567.0	3547.8	3538.2	3538.2	3531.0	3535.8	3535.8	3540.6
35°	3240.8	3214.4	3200.0	3188.0	3188.0	3197.6	3226.4	3233.6	3248.0	3259.9	3269.6
37.5°	2739.4	2737.0	2753.8	2768.2	2804.2	2845.0	2895.3	2938.5	2979.3	3008.1	3036.9
40°	2197.3	2257.3	2305.2	2372.4	2427.5	2506.7	2597.9	2672.2	2741.8	2792.2	2845.0
42.5°	1715.1	1791.9	1892.7	1991.0	2089.3	2197.3	2317.3	2420.4	2511.5	2581.1	2636.3
45°	1336.1	1441.7	1564.0	1688.8	1815.9	1950.2	2075.0	2180.5	2276.5	2348.4	2403.6
47.5°	1077.0	1192.2	1331.3	1468.1	1612.0	1753.5	1892.7	1983.8	2062.9	2120.5	2170.9
50°	889.9	1012.3	1158.6	1314.5	1458.4	1600.0	1719.9	1808.7	1873.5	1923.8	1955.0
52.5°	743.6	873.1	1029.1	1185.0	1328.9	1458.4	1566.4	1633.6	1686.4	1722.3	1751.1
55°	614.1	738.8	885.2	1031.5	1173.0	1295.3	1384.1	1434.5	1475.2	1496.8	1513.6
57.5°	501.4	616.5	750.8	885.2	1007.5	1108.3	1177.8	1228.2	1247.4	1264.2	1261.8
60°	393.4	501.4	623.7	738.8	844.4	925.9	976.3	1005.1	1019.5	1026.7	1021.9
62.5°	309.4	407.8	501.4	602.1	678.9	748.4	796.4	796.4	803.6	806.0	813.2
65°	230.3	304.6	386.2	460.6	522.9	568.5	594.9	602.1	611.7	609.3	604.5
67.5°	170.3	225.5	285.4	340.6	383.8	412.6	431.8	448.6	446.2	441.4	439.0
70°	117.6	153.5	206.3	239.9	271.1	299.9	304.6	307.0	309.4	311.8	307.0
72.5°	81.6	107.9	136.8	165.5	184.7	196.7	208.7	211.1	211.1	211.1	208.7
75°	40.8	55.2	81.6	93.6	110.3	115.2	124.7	124.7	131.9	122.3	119.9
77.5°	36.0	43.2	57.6	67.1	74.4	81.6	83.9	91.2	88.7	83.9	86.3
80°	21.6	26.4	36.0	40.8	50.4	52.8	55.2	57.6	55.2	57.6	57.6
82.5°	16.8	19.2	24.0	24.0	31.2	31.2	33.6	33.6	36.0	36.0	36.0
85°	9.6	16.8	14.4	28.8	19.2	19.2	24.0	28.8	24.0	24.0	28.8
87.5°	9.6	9.6	7.2	9.6	9.6	9.6	12.0	14.4	14.4	16.8	14.4
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: P249265

CATALOG NUMBER: LSR8B90D010 EC8B90940 8LBDW0WMH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4468.9	4468.9	4468.9	4468.9
2.5°	4476.2	4480.9	4473.8	4471.3
5°	4483.3	4483.3	4478.6	4478.6
7.5°	4483.3	4483.3	4476.2	4471.3
10°	4464.1	4464.1	4457.0	4452.2
12.5°	4428.1	4428.1	4425.7	4418.6
15°	4382.6	4382.6	4373.0	4365.8
17.5°	4320.2	4325.0	4313.0	4313.0
20°	4253.1	4250.7	4241.1	4236.3
22.5°	4183.5	4178.7	4176.3	4161.9
25°	4109.1	4104.3	4097.1	4089.9
27.5°	3982.0	3979.6	3972.4	3962.8
30°	3787.7	3785.3	3775.7	3775.7
32.5°	3535.8	3533.4	3523.8	3526.2
35°	3274.3	3284.0	3279.1	3269.6
37.5°	3056.0	3063.3	3068.1	3063.3
40°	2873.7	2895.3	2897.7	2902.6
42.5°	2679.5	2708.2	2717.8	2722.6
45°	2446.7	2473.2	2494.7	2489.9
47.5°	2209.3	2228.5	2247.6	2233.3
50°	1981.4	1993.4	2000.6	2000.6
52.5°	1765.5	1765.5	1763.1	1765.5
55°	1518.4	1518.4	1508.9	1513.6
57.5°	1259.3	1264.2	1256.9	1245.0
60°	1019.5	1007.5	1002.7	995.5
62.5°	794.0	794.0	777.2	798.8
65°	594.9	587.7	580.5	578.1
67.5°	431.8	429.4	422.2	419.8
70°	304.6	295.1	292.7	287.8
72.5°	203.9	203.9	199.1	199.1
75°	124.7	112.8	110.3	112.8
77.5°	86.3	83.9	83.9	81.6
80°	57.6	55.2	60.0	52.8
82.5°	36.0	38.4	36.0	38.4
85°	24.0	28.8	26.4	26.4
87.5°	14.4	14.4	14.4	14.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)