

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: P248455

Luminaire Tested: **LSR8B90D010 EC8B90835 8LBDW0WH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P248455  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13956)  
Test Lab: INNOVATION CENTER-P1  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LSR8B90D010 EC8B90835 8LBDW0WH  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 3500 CCT WITH WHEAT TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9634.0 lumens  
Efficiency: N/A  
Efficacy: 111.9 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.33 / 1.2  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

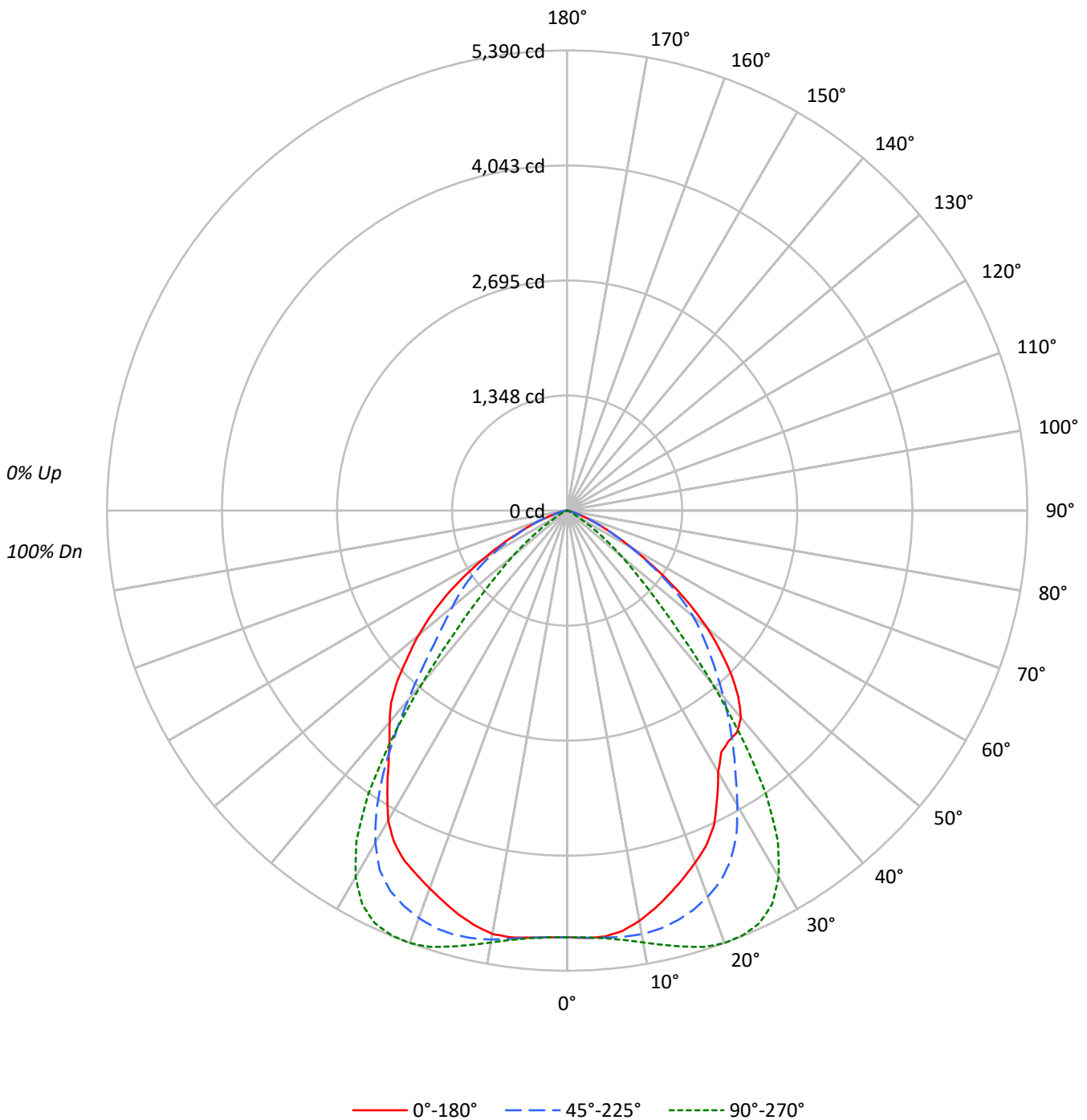
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P248455

CATALOG NUMBER: LSR8B90D010 EC8B90835 8LBDW0WH

### Luminous Intensity Polar Plot





TEST NUMBER: P248455

CATALOG NUMBER: LSR8B90D010 EC8B90835 8LBDW0WH

**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	92	90					90			
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79					79			
3	97	88	82	76	94	87	81	76	84	79	74	81	77	73	79	75	72	70					70			
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62					62			
5	84	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56					56			
6	78	66	59	53	76	66	58	53	64	57	53	62	57	52	61	56	52	50					50			
7	73	61	53	48	71	60	53	48	59	52	48	57	52	47	56	51	47	45					45			
8	68	56	49	44	67	56	48	43	54	48	43	53	47	43	52	47	43	41					41			
9	64	52	45	40	63	51	44	40	50	44	39	49	44	39	48	43	39	38					38			
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34					34			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	154114	154114	154114
5°	155031	155606	155442
10°	152753	160812	157656
15°	148287	168780	156415
20°	143984	176888	154517
25°	138454	181420	153799
30°	126005	176445	149242
35°	124128	152888	137307
40°	127500	106037	130169
45°	118695	64088	122398
50°	102954	39578	109061
55°	79008	20677	92556
60°	53828	8344	69857
65°	33484	4261	48193
70°	18176	2633	29419
75°	9484	1263	17383
80°	4244	1421	9412
85°	2830	955	8456



TEST NUMBER: P248455

CATALOG NUMBER: LSR8B90D010 EC8B90835 8LBDW0WH

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	480.6	5.0
10°-20°	1423.8	14.8
20°-30°	2172.2	22.5
30°-40°	2266.7	23.5
40°-50°	1702.6	17.7
50°-60°	1047.6	10.9
60°-70°	426.3	4.4
70°-80°	100.4	1.0
80°-90°	13.8	0.1
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°	4076.6	42.3
0°-40°	6343.3	65.8
0°-60°	9093.4	94.4
0°-90°	9634.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9634.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	4998	4998	4998	4998	4998	
5°	5008	5022	5027	5022	5022	474
15°	4645	4971	5287	5141	4900	1309
25°	4069	4526	5332	4910	4520	1850
35°	3297	3390	4061	3754	3648	2082
45°	2722	2356	1470	2194	2807	2077
55°	1470	1395	385	1395	1722	1321
65°	459	464	58	623	660	479
75°	80	80	11	141	146	96
85°	8	8	3	19	24	11
90°	0	0	0	0	0	



TEST NUMBER: P248455

CATALOG NUMBER: LSR8B90D010 EC8B90835 8LBDW0WH

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4997.8	4997.8	4997.8	4997.8	4997.8	4997.8	4997.8	4997.8	4997.8	4997.8	4997.8
2.5°	5011.1	5003.1	5011.1	5011.1	5013.7	5008.4	5011.1	5013.7	5008.4	5008.4	5008.4
5°	5008.4	5003.1	5008.4	5005.8	5011.1	5011.1	5016.4	5016.4	5021.7	5021.7	5029.6
7.5°	4966.0	4955.4	4966.0	4974.0	4979.2	4989.9	5003.1	5013.7	5024.3	5035.0	5048.2
10°	4878.4	4878.4	4886.4	4902.3	4918.2	4936.8	4960.7	4987.2	5013.7	5037.6	5061.5
12.5°	4769.7	4761.7	4777.6	4798.8	4822.7	4851.9	4889.1	4928.8	4971.3	5019.0	5056.2
15°	4645.0	4637.0	4655.6	4676.8	4706.0	4748.5	4793.6	4846.6	4907.6	4971.3	5032.3
17.5°	4517.6	4515.0	4533.6	4562.8	4586.6	4631.7	4690.1	4753.7	4822.7	4907.6	4987.2
20°	4387.7	4385.0	4403.6	4427.5	4459.3	4501.7	4560.1	4634.4	4716.6	4812.1	4905.0
22.5°	4252.4	4255.0	4270.9	4297.5	4324.0	4369.1	4430.1	4504.4	4594.6	4698.0	4801.5
25°	4069.3	4056.1	4077.3	4103.9	4148.9	4186.0	4244.4	4324.0	4416.8	4525.6	4647.7
27.5°	3804.0	3801.4	3820.0	3843.8	3883.6	3928.7	3992.4	4074.6	4172.8	4292.2	4411.5
30°	3538.8	3544.1	3552.1	3576.0	3602.4	3647.5	3711.2	3780.2	3873.0	3987.1	4114.4
32.5°	3358.4	3358.4	3369.0	3384.9	3403.5	3427.4	3472.5	3522.9	3594.5	3674.1	3766.9
35°	3297.4	3286.8	3297.4	3300.0	3302.7	3308.0	3315.9	3331.9	3355.7	3390.2	3424.7
37.5°	3270.9	3262.9	3262.9	3252.3	3239.0	3223.1	3201.9	3178.0	3151.5	3117.0	3090.5
40°	3167.4	3162.1	3156.8	3146.2	3117.0	3085.2	3050.6	2995.0	2933.9	2849.0	2764.2
42.5°	2968.5	2963.1	2960.5	2939.3	2912.7	2875.6	2835.8	2777.4	2700.5	2591.7	2469.7
45°	2721.8	2711.1	2703.2	2684.6	2666.0	2634.2	2597.1	2544.0	2467.1	2355.7	2209.8
47.5°	2435.2	2429.9	2427.3	2419.3	2400.8	2382.2	2358.3	2315.9	2246.9	2140.8	1989.6
50°	2146.1	2135.5	2140.8	2138.2	2130.2	2116.9	2101.0	2071.8	2018.7	1923.2	1785.3
52.5°	1814.5	1814.5	1811.9	1819.8	1822.4	1819.8	1822.4	1790.6	1745.5	1673.9	1557.2
55°	1469.6	1469.6	1477.6	1488.2	1498.8	1501.5	1498.8	1485.6	1453.7	1395.3	1291.9
57.5°	1146.0	1140.7	1156.6	1172.5	1183.2	1193.7	1185.8	1175.2	1156.6	1108.8	1029.3
60°	872.8	872.8	883.3	894.0	904.6	915.2	912.6	909.9	894.0	862.1	798.5
62.5°	641.9	644.6	644.6	652.6	663.2	673.8	681.7	673.8	665.8	644.6	602.2
65°	458.9	456.2	458.9	466.9	474.9	485.5	490.8	488.1	480.1	464.2	432.4
67.5°	307.7	305.1	315.7	318.3	323.6	334.3	331.6	334.3	331.6	318.3	291.8
70°	201.6	196.3	201.6	198.9	206.9	209.6	214.8	217.5	214.8	206.9	198.9
72.5°	124.7	122.0	124.7	127.4	130.0	132.6	137.9	137.9	135.3	130.0	119.4
75°	79.6	71.6	74.3	69.0	74.3	74.3	79.6	82.2	79.6	79.6	74.3
77.5°	47.8	47.8	47.8	47.8	47.8	47.8	47.8	50.4	53.0	47.8	45.1
80°	23.9	23.9	26.5	26.5	26.5	29.2	26.5	26.5	26.5	29.2	21.2
82.5°	18.6	15.9	15.9	15.9	18.6	15.9	15.9	15.9	15.9	15.9	15.9
85°	8.0	10.6	8.0	5.3	8.0	8.0	10.6	8.0	8.0	8.0	10.6
87.5°	2.7	2.7	0.0	0.0	0.0	2.7	0.0	2.7	2.7	5.3	0.0
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: P248455

CATALOG NUMBER: LSR8B90D010 EC8B90835 8LBDW0WH

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4997.8	4997.8	4997.8	4997.8	4997.8	4997.8	4997.8	4997.8	4997.8	4997.8	4997.8
2.5°	5011.1	5005.8	5005.8	5003.1	5008.4	5003.1	5005.8	5003.1	5003.1	5008.4	5003.1
5°	5029.6	5032.3	5027.0	5024.3	5032.3	5032.3	5032.3	5027.0	5027.0	5029.6	5027.0
7.5°	5056.2	5061.5	5064.1	5066.8	5072.1	5074.8	5074.8	5072.1	5069.4	5077.4	5066.8
10°	5085.3	5093.3	5109.2	5117.2	5130.5	5130.5	5135.8	5135.8	5130.5	5135.8	5133.1
12.5°	5074.8	5122.5	5149.0	5167.6	5186.1	5202.0	5207.4	5210.0	5207.4	5218.0	5207.4
15°	5093.3	5133.1	5175.6	5207.4	5241.8	5260.4	5265.7	5286.9	5292.3	5294.9	5279.0
17.5°	5064.1	5135.8	5180.8	5228.6	5279.0	5313.5	5345.3	5358.6	5361.3	5366.5	5345.3
20°	4997.8	5077.4	5146.4	5215.4	5273.7	5326.7	5353.3	5390.4	5379.8	5401.1	5371.8
22.5°	4907.6	4997.8	5085.3	5175.6	5236.6	5300.3	5355.9	5382.4	5395.7	5395.7	5363.9
25°	4764.4	4870.5	4966.0	5058.8	5151.7	5228.6	5292.3	5332.1	5340.0	5337.4	5300.3
27.5°	4541.5	4655.6	4767.0	4873.2	4987.2	5077.4	5151.7	5199.4	5212.7	5212.7	5172.9
30°	4233.8	4355.8	4464.6	4591.9	4708.7	4809.5	4912.9	4955.4	4979.2	4979.2	4934.2
32.5°	3867.7	3971.2	4072.0	4196.7	4324.0	4438.1	4536.2	4594.6	4623.8	4621.1	4581.3
35°	3469.8	3520.2	3597.2	3690.0	3804.0	3910.2	4005.6	4061.4	4111.8	4109.1	4072.0
37.5°	3071.9	3058.6	3066.6	3101.1	3172.7	3247.0	3321.3	3374.3	3416.7	3435.4	3427.4
40°	2682.0	2613.0	2546.6	2522.8	2528.1	2554.6	2594.4	2634.2	2682.0	2705.8	2716.4
42.5°	2331.8	2215.1	2098.3	2010.8	1960.4	1944.5	1963.0	1976.3	2005.5	2040.0	2074.5
45°	2050.6	1894.1	1740.2	1604.9	1520.0	1469.6	1459.0	1469.6	1485.6	1520.0	1565.1
47.5°	1819.8	1636.7	1464.3	1313.1	1188.4	1122.1	1103.6	1098.3	1114.2	1146.0	1207.0
50°	1615.5	1432.5	1241.5	1066.4	936.4	862.1	835.6	825.0	843.6	867.4	923.1
52.5°	1392.7	1212.3	1016.0	846.2	710.9	634.0	604.8	588.9	599.5	631.4	687.1
55°	1151.3	984.1	806.4	631.4	501.4	429.8	395.2	384.6	395.2	429.8	485.5
57.5°	909.9	769.3	620.7	456.2	339.5	267.9	233.4	222.8	252.0	265.3	323.6
60°	710.9	596.9	469.5	334.3	233.4	177.7	143.3	135.3	148.6	172.4	220.2
62.5°	533.2	461.6	360.8	238.7	172.4	114.0	95.5	87.6	95.5	114.0	151.2
65°	387.3	331.6	252.0	175.1	116.7	84.9	63.7	58.4	66.3	79.6	111.4
67.5°	265.3	222.8	175.1	122.0	79.6	53.0	45.1	45.1	47.8	58.4	82.2
70°	172.4	145.9	111.4	79.6	53.0	39.8	34.5	29.2	34.5	42.5	55.7
72.5°	108.8	92.8	71.6	55.7	39.8	29.2	23.9	21.2	26.5	31.8	42.5
75°	66.3	50.4	37.1	29.2	21.2	21.2	21.2	10.6	13.2	21.2	26.5
77.5°	39.8	34.5	29.2	23.9	18.6	10.6	10.6	10.6	13.2	15.9	23.9
80°	21.2	18.6	13.2	13.2	10.6	8.0	10.6	8.0	5.3	13.2	15.9
82.5°	13.2	10.6	10.6	10.6	13.2	5.3	8.0	5.3	8.0	10.6	8.0
85°	8.0	8.0	8.0	5.3	13.2	5.3	5.3	2.7	2.7	5.3	5.3
87.5°	0.0	2.7	2.7	0.0	2.7	0.0	2.7	2.7	2.7	2.7	2.7
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: P248455

CATALOG NUMBER: LSR8B90D010 EC8B90835 8LBDW0WH

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	4997.8	4997.8	4997.8	4997.8	4997.8	4997.8	4997.8	4997.8	4997.8	4997.8	4997.8
2.5°	5005.8	5003.1	5005.8	5003.1	5003.1	5003.1	5005.8	5005.8	5003.1	5003.1	5008.4
5°	5027.0	5027.0	5027.0	5024.3	5021.7	5021.7	5027.0	5027.0	5019.0	5027.0	5027.0
7.5°	5072.1	5064.1	5072.1	5061.5	5056.2	5058.8	5061.5	5056.2	5050.9	5053.5	5053.5
10°	5130.5	5122.5	5122.5	5114.5	5106.6	5101.2	5096.0	5082.7	5069.4	5066.8	5056.2
12.5°	5199.4	5186.1	5178.2	5162.3	5149.0	5130.5	5114.5	5093.3	5066.8	5048.2	5029.6
15°	5268.4	5247.2	5228.6	5202.0	5172.9	5141.0	5106.6	5072.1	5029.6	4992.5	4960.7
17.5°	5324.1	5294.9	5260.4	5218.0	5175.6	5127.8	5077.4	5027.0	4966.0	4918.2	4881.1
20°	5342.6	5300.3	5255.1	5199.4	5143.7	5077.4	5013.7	4947.4	4878.4	4828.0	4785.6
22.5°	5318.8	5268.4	5212.7	5154.3	5080.0	5008.4	4934.2	4857.2	4796.2	4727.2	4687.4
25°	5252.5	5191.5	5130.5	5061.5	4989.9	4910.3	4830.7	4751.1	4676.8	4639.7	4589.3
27.5°	5117.2	5050.9	4984.5	4912.9	4830.7	4751.1	4668.9	4591.9	4528.3	4477.9	4448.7
30°	4878.4	4801.5	4724.6	4647.7	4576.0	4493.8	4416.8	4353.2	4289.5	4249.7	4220.6
32.5°	4512.3	4443.4	4366.5	4292.2	4225.9	4156.9	4093.2	4037.5	3992.4	3965.9	3944.6
35°	4019.0	3950.0	3891.6	3838.6	3782.8	3753.7	3713.9	3682.0	3663.5	3652.9	3650.2
37.5°	3398.2	3358.4	3339.8	3329.2	3318.6	3310.7	3315.9	3329.2	3339.8	3358.4	3379.6
40°	2735.0	2769.5	2780.1	2817.2	2851.7	2896.8	2947.2	3005.6	3053.3	3114.3	3156.8
42.5°	2130.2	2193.8	2268.1	2347.7	2432.6	2514.8	2615.6	2708.4	2793.3	2870.3	2936.6
45°	1636.7	1734.9	1846.3	1960.4	2074.5	2193.8	2315.9	2429.9	2530.7	2613.0	2682.0
47.5°	1276.0	1384.8	1528.0	1668.6	1806.5	1947.1	2082.4	2201.8	2286.7	2366.2	2427.3
50°	1010.7	1135.4	1291.9	1453.7	1604.9	1753.4	1896.7	2008.1	2093.0	2156.7	2201.8
52.5°	782.5	931.1	1090.3	1260.1	1421.9	1583.7	1716.3	1819.8	1888.8	1944.5	1978.9
55°	583.6	729.5	899.3	1074.4	1238.8	1395.3	1520.0	1610.3	1671.3	1703.1	1721.6
57.5°	421.8	554.4	724.2	899.3	1047.8	1196.4	1297.2	1379.4	1413.9	1432.5	1440.5
60°	307.7	429.8	580.9	732.2	872.8	992.1	1079.7	1135.4	1161.9	1172.5	1169.9
62.5°	225.5	331.6	461.6	588.9	703.0	801.1	870.1	907.2	920.5	925.8	917.9
65°	172.4	254.6	366.1	464.2	551.8	623.4	673.8	697.7	705.6	703.0	697.7
67.5°	127.4	191.0	273.3	347.5	411.2	466.9	493.4	514.7	519.9	512.0	504.0
70°	90.2	140.6	198.9	249.4	297.1	329.0	358.1	360.8	360.8	358.1	352.8
72.5°	63.7	98.1	135.3	169.8	198.9	222.8	233.4	241.4	238.7	236.1	230.8
75°	42.5	61.0	98.1	106.1	132.6	140.6	151.2	151.2	153.8	145.9	145.9
77.5°	26.5	42.5	58.4	69.0	79.6	90.2	95.5	95.5	98.1	95.5	95.5
80°	15.9	26.5	31.8	47.8	47.8	55.7	58.4	61.0	55.7	63.7	55.7
82.5°	10.6	15.9	23.9	23.9	29.2	34.5	34.5	37.1	37.1	34.5	34.5
85°	8.0	10.6	13.2	15.9	15.9	18.6	15.9	15.9	18.6	21.2	18.6
87.5°	2.7	5.3	2.7	5.3	5.3	10.6	8.0	8.0	8.0	10.6	10.6
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: P248455

CATALOG NUMBER: LSR8B90D010 EC8B90835 8LBDW0WH

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	4997.8	4997.8	4997.8	4997.8
2.5°	5003.1	5005.8	5003.1	5003.1
5°	5027.0	5024.3	5027.0	5021.7
7.5°	5045.6	5045.6	5042.9	5042.9
10°	5045.6	5035.0	5035.0	5035.0
12.5°	5005.8	4992.5	4984.5	4979.2
15°	4936.8	4912.9	4902.3	4899.6
17.5°	4846.6	4825.4	4812.1	4804.2
20°	4743.1	4721.9	4706.0	4708.7
22.5°	4652.9	4629.1	4618.5	4613.1
25°	4562.8	4533.6	4525.6	4520.3
27.5°	4416.8	4400.9	4393.0	4385.0
30°	4194.0	4186.0	4172.8	4191.4
32.5°	3936.7	3923.4	3912.8	3920.8
35°	3652.9	3644.9	3652.9	3647.5
37.5°	3392.9	3400.8	3411.5	3416.7
40°	3188.6	3217.8	3228.4	3233.7
42.5°	2984.4	3018.8	3040.1	3053.3
45°	2732.3	2766.8	2790.7	2806.7
47.5°	2472.4	2501.6	2525.4	2522.8
50°	2236.3	2252.2	2262.8	2273.4
52.5°	1997.5	1997.5	2000.2	2000.2
55°	1727.0	1721.6	1719.0	1721.6
57.5°	1429.8	1424.6	1421.9	1413.9
60°	1159.3	1143.4	1132.7	1132.7
62.5°	907.2	888.7	880.7	878.1
65°	681.7	679.1	663.2	660.5
67.5°	493.4	482.8	472.2	474.9
70°	347.5	331.6	331.6	326.3
72.5°	225.5	217.5	214.8	214.8
75°	140.6	140.6	135.3	145.9
77.5°	92.8	92.8	90.2	92.8
80°	55.7	55.7	55.7	53.0
82.5°	34.5	37.1	34.5	34.5
85°	18.6	21.2	15.9	23.9
87.5°	10.6	13.2	10.6	13.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)