

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: P249211

Luminaire Tested: **LSR8B90D010 EC8B90835 8LBDW0WMH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249211  
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 EC8B90835 8LBDW0WMH  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 3500 CCT WITH WARM HAZE TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9510.0 lumens  
Efficiency: N/A  
Efficacy: 110.5 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

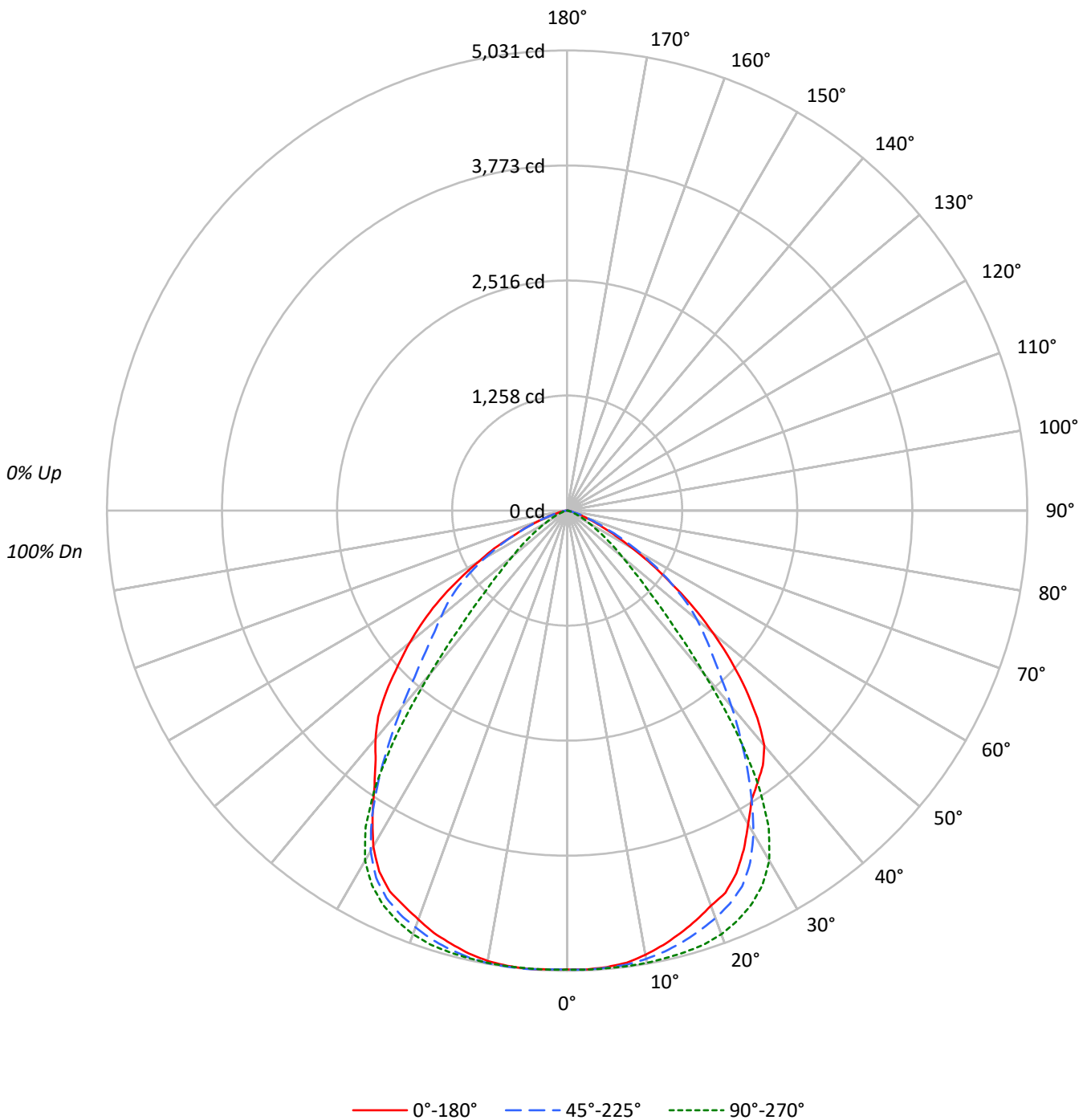
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	154727	154727	154727
5°	155068	155486	155653
10°	154415	157199	156522
15°	152703	159496	156489
20°	150868	161740	156083
25°	148910	161924	156242
30°	140878	157371	150948
35°	136671	136773	138192
40°	134980	94106	131188
45°	120274	56496	121918
50°	100009	37601	107756
55°	75003	25918	91368
60°	50831	17275	68938
65°	30660	11200	47362
70°	16995	6077	29140
75°	7697	2562	15083
80°	6695	2859	10513
85°	7607	3786	10508



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	478.9	5.0
10°-20°	1390.7	14.6
20°-30°	2110.8	22.2
30°-40°	2217.0	23.3
40°-50°	1662.1	17.5
50°-60°	1066.5	11.2
60°-70°	456.2	4.8
70°-80°	107.8	1.1
80°-90°	20.0	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°	3980.4	41.9
0°-40°	6197.3	65.2
0°-60°	8926.0	93.9
0°-90°	9510.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9510.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	5018	5018	5018	5018	5018	
5°	5010	5018	5023	5031	5028	476
15°	4783	4883	4996	4964	4902	1349
25°	4377	4530	4759	4673	4592	1999
35°	3631	3429	3633	3590	3671	2279
45°	2758	2254	1296	2190	2796	2112
55°	1395	1395	482	1454	1700	1266
65°	420	496	154	638	649	449
75°	65	75	22	129	127	94
85°	22	13	11	22	30	23
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°	5017.7	5017.7	5017.7	5017.7	5017.7	5017.7	5017.7	5017.7	5017.7	5017.7	5017.7
2.5°	5020.4	5025.8	5023.1	5023.1	5020.4	5023.1	5023.1	5028.5	5028.5	5023.1	5020.4
5°	5009.6	5015.0	5015.0	5009.6	5009.6	5023.1	5015.0	5020.4	5020.4	5017.7	5017.7
7.5°	4985.4	4985.4	4996.1	4988.1	4988.1	4996.1	4993.4	4998.8	5004.2	5006.9	5006.9
10°	4931.5	4936.9	4939.6	4939.6	4942.3	4950.3	4955.7	4966.5	4971.9	4977.3	4980.0
12.5°	4864.2	4872.2	4874.9	4872.2	4880.3	4891.1	4904.6	4918.0	4926.1	4936.9	4945.0
15°	4783.3	4783.3	4788.7	4796.8	4802.2	4818.4	4831.8	4848.0	4869.5	4883.0	4896.5
17.5°	4694.5	4699.9	4707.9	4707.9	4718.7	4745.6	4753.7	4778.0	4802.2	4815.7	4842.6
20°	4597.5	4602.9	4611.0	4616.4	4629.8	4651.4	4667.5	4689.1	4716.0	4740.3	4767.2
22.5°	4522.1	4511.3	4516.7	4522.1	4535.6	4554.4	4573.3	4600.2	4627.1	4651.4	4678.3
25°	4376.6	4379.3	4387.4	4392.8	4409.0	4425.1	4446.7	4479.0	4503.2	4530.2	4559.8
27.5°	4180.1	4182.8	4196.2	4196.2	4209.6	4236.6	4250.0	4277.0	4309.4	4336.2	4371.3
30°	3956.5	3961.9	3961.9	3972.7	3980.7	3994.2	4007.7	4034.6	4050.8	4075.0	4123.5
32.5°	3751.8	3757.2	3754.5	3751.8	3743.7	3741.0	3738.3	3743.7	3749.1	3757.2	3776.0
35°	3630.6	3617.1	3606.4	3587.5	3566.0	3539.0	3514.8	3482.5	3452.8	3428.6	3401.7
37.5°	3514.8	3512.1	3495.9	3469.0	3425.9	3377.4	3320.9	3250.8	3180.8	3105.4	3032.7
40°	3353.2	3345.1	3331.6	3293.9	3245.4	3186.2	3110.8	3024.6	2911.5	2795.7	2677.2
42.5°	3078.5	3081.2	3065.0	3035.4	2989.6	2933.0	2854.9	2760.7	2639.5	2502.1	2348.6
45°	2758.0	2758.0	2752.6	2728.3	2696.0	2650.2	2591.0	2512.9	2394.4	2254.3	2090.0
47.5°	2424.0	2426.7	2418.6	2413.2	2399.7	2370.1	2327.0	2267.8	2184.3	2049.6	1885.3
50°	2084.7	2084.7	2098.1	2095.4	2095.4	2084.7	2065.8	2030.8	1958.1	1850.3	1696.8
52.5°	1745.3	1750.7	1758.8	1769.5	1783.0	1804.5	1783.0	1766.8	1721.0	1637.5	1505.6
55°	1395.1	1400.5	1414.0	1432.8	1449.0	1470.6	1475.9	1475.9	1451.7	1395.1	1295.5
57.5°	1096.2	1088.1	1098.9	1115.1	1136.6	1158.1	1174.3	1193.1	1190.4	1152.7	1072.0
60°	824.2	826.9	834.9	851.1	867.3	886.1	907.7	923.8	931.9	913.1	861.9
62.5°	600.6	600.6	611.4	627.5	635.6	662.6	676.0	684.1	692.2	689.5	657.2
65°	420.2	425.5	430.9	439.0	447.1	463.2	471.3	487.5	492.9	495.6	471.3
67.5°	296.3	288.2	293.6	298.9	307.0	317.8	334.0	334.0	342.0	342.0	325.9
70°	188.5	188.5	191.2	199.3	204.7	207.4	212.8	218.1	226.2	223.5	223.5
72.5°	126.6	123.9	126.6	129.3	132.0	140.0	140.0	142.7	148.1	150.8	140.0
75°	64.6	67.4	72.7	70.1	78.1	72.7	75.4	83.5	80.8	75.4	75.4
77.5°	53.8	53.8	53.8	51.2	56.5	56.5	53.8	59.2	56.5	56.5	53.8
80°	37.7	40.4	37.7	35.0	37.7	35.0	35.0	35.0	35.0	35.0	32.3
82.5°	29.7	24.3	27.0	24.3	27.0	27.0	24.3	21.5	21.5	24.3	21.5
85°	21.5	16.1	18.8	18.8	16.1	16.1	16.1	16.1	16.1	13.4	13.4
87.5°	13.4	8.1	8.1	8.1	10.7	10.7	10.7	8.1	10.7	10.7	5.4
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):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	5017.7	5017.7	5017.7	5017.7	5017.7	5017.7	5017.7	5017.7	5017.7	5017.7	5017.7
2.5°	5025.8	5023.1	5028.5	5025.8	5025.8	5023.1	5025.8	5023.1	5028.5	5017.7	5020.4
5°	5025.8	5020.4	5023.1	5025.8	5028.5	5023.1	5023.1	5023.1	5028.5	5023.1	5025.8
7.5°	5015.0	5012.3	5020.4	5025.8	5023.1	5020.4	5025.8	5023.1	5028.5	5025.8	5031.1
10°	4993.4	4996.1	5001.5	5009.6	5012.3	5015.0	5020.4	5020.4	5028.5	5017.7	5023.1
12.5°	4961.1	4971.9	4985.4	4990.7	5001.5	5001.5	5006.9	5009.6	5015.0	5012.3	5020.4
15°	4920.7	4934.2	4950.3	4963.8	4977.3	4985.4	4993.4	4996.1	5004.2	4996.1	4998.8
17.5°	4872.2	4888.4	4912.6	4928.8	4950.3	4958.4	4969.2	4974.6	4982.7	4977.3	4980.0
20°	4804.9	4823.8	4850.7	4874.9	4888.4	4907.2	4920.7	4928.8	4934.2	4928.8	4931.5
22.5°	4710.6	4737.6	4772.6	4791.4	4818.4	4834.5	4837.2	4856.1	4869.5	4856.1	4861.5
25°	4600.2	4627.1	4654.1	4694.5	4718.7	4737.6	4756.4	4759.1	4772.6	4769.9	4767.2
27.5°	4417.0	4452.1	4497.8	4530.2	4562.5	4592.1	4613.7	4619.0	4632.5	4627.1	4629.8
30°	4166.5	4204.3	4247.4	4298.5	4344.3	4373.9	4400.9	4419.7	4433.2	4425.1	4422.4
32.5°	3811.1	3848.8	3894.6	3945.7	3999.6	4042.7	4075.0	4099.3	4115.4	4110.0	4096.6
35°	3404.4	3415.1	3444.8	3485.2	3530.9	3576.7	3606.4	3633.3	3652.1	3657.5	3657.5
37.5°	2986.9	2951.9	2930.4	2930.4	2957.3	2976.1	3003.1	3019.2	3048.9	3059.6	3067.7
40°	2582.9	2502.1	2426.7	2370.1	2332.4	2329.7	2329.7	2337.8	2364.7	2399.7	2432.1
42.5°	2222.0	2092.7	1976.9	1871.9	1796.5	1753.4	1734.5	1737.2	1758.8	1791.1	1844.9
45°	1933.8	1772.2	1626.8	1500.2	1397.8	1330.5	1298.2	1295.5	1311.6	1349.3	1408.6
47.5°	1710.3	1537.9	1373.6	1228.1	1117.8	1045.0	1007.3	996.6	1007.3	1042.3	1112.3
50°	1524.4	1346.7	1177.0	1026.2	907.7	832.3	797.2	783.8	797.2	826.9	896.9
52.5°	1352.0	1168.9	1010.0	864.6	738.0	673.3	635.6	627.5	635.6	670.6	727.2
55°	1152.7	996.6	840.3	694.9	584.5	519.8	490.2	482.1	490.2	522.5	581.8
57.5°	956.2	821.5	684.1	552.1	457.9	401.3	374.4	363.6	382.4	404.0	474.0
60°	773.0	665.3	549.4	433.6	355.5	304.3	282.8	280.1	285.5	312.4	360.9
62.5°	606.0	517.1	425.5	331.3	266.6	245.1	218.1	215.5	220.8	237.0	274.7
65°	436.3	379.8	309.7	242.4	191.2	161.6	150.8	153.5	158.9	169.7	204.7
67.5°	304.3	263.9	215.5	169.7	132.0	118.5	107.7	105.0	107.7	126.6	145.4
70°	204.7	180.4	145.4	129.3	91.6	72.7	75.4	67.4	78.1	78.1	94.2
72.5°	134.6	118.5	96.9	75.4	64.6	51.2	51.2	48.5	53.8	56.5	70.1
75°	70.1	53.8	53.8	37.7	27.0	13.4	24.3	21.5	18.8	21.5	27.0
77.5°	48.5	40.4	37.7	29.7	27.0	21.5	21.5	21.5	21.5	24.3	27.0
80°	29.7	29.7	21.5	18.8	16.1	13.4	16.1	16.1	16.1	16.1	18.8
82.5°	18.8	16.1	16.1	13.4	13.4	10.7	10.7	10.7	10.7	10.7	16.1
85°	16.1	10.7	10.7	8.1	10.7	18.8	8.1	10.7	10.7	10.7	8.1
87.5°	5.4	8.1	8.1	8.1	5.4	2.7	5.4	8.1	8.1	13.4	10.7
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):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	5017.7	5017.7	5017.7	5017.7	5017.7	5017.7	5017.7	5017.7	5017.7	5017.7	5017.7
2.5°	5025.8	5028.5	5028.5	5025.8	5025.8	5020.4	5031.1	5023.1	5025.8	5036.5	5028.5
5°	5031.1	5033.8	5033.8	5031.1	5031.1	5031.1	5033.8	5033.8	5031.1	5028.5	5033.8
7.5°	5041.9	5039.2	5039.2	5033.8	5033.8	5028.5	5033.8	5025.8	5031.1	5025.8	5033.8
10°	5028.5	5031.1	5028.5	5025.8	5025.8	5023.1	5023.1	5015.0	5017.7	5009.6	5015.0
12.5°	5020.4	5017.7	5017.7	5012.3	5006.9	5001.5	4998.8	4990.7	4990.7	4971.9	4980.0
15°	4998.8	5001.5	4993.4	4982.7	4977.3	4963.8	4958.4	4947.6	4936.9	4923.4	4926.1
17.5°	4980.0	4971.9	4961.1	4950.3	4928.8	4918.0	4907.2	4891.1	4885.7	4869.5	4864.2
20°	4923.4	4918.0	4904.6	4885.7	4872.2	4848.0	4837.2	4821.1	4807.6	4791.4	4783.3
22.5°	4850.7	4845.3	4829.1	4810.3	4788.7	4778.0	4767.2	4737.6	4724.1	4707.9	4705.2
25°	4759.1	4751.0	4734.9	4713.3	4702.5	4672.9	4662.1	4640.6	4635.2	4619.0	4616.4
27.5°	4619.0	4608.3	4589.4	4562.5	4543.6	4524.8	4514.0	4497.8	4492.5	4476.3	4473.6
30°	4409.0	4395.5	4357.8	4347.0	4314.7	4295.8	4295.8	4274.3	4277.0	4266.3	4266.3
32.5°	4077.7	4056.2	4026.5	4005.0	3983.4	3972.7	3972.7	3964.6	3970.0	3970.0	3975.4
35°	3638.7	3609.1	3592.9	3579.4	3579.4	3590.2	3622.5	3630.6	3646.8	3660.2	3671.0
37.5°	3075.7	3073.1	3092.0	3108.1	3148.5	3194.3	3250.8	3299.3	3345.1	3377.4	3409.7
40°	2467.1	2534.4	2588.3	2663.7	2725.6	2814.5	2916.9	3000.4	3078.5	3135.1	3194.3
42.5°	1925.7	2011.9	2125.1	2235.4	2345.9	2467.1	2601.8	2717.6	2819.9	2898.0	2960.0
45°	1500.2	1618.7	1756.1	1896.1	2038.9	2189.7	2329.7	2448.2	2556.0	2636.8	2698.7
47.5°	1209.3	1338.6	1494.8	1648.3	1809.9	1968.8	2125.1	2227.4	2316.2	2380.9	2437.5
50°	999.2	1136.6	1300.9	1475.9	1637.5	1796.5	1931.1	2030.8	2103.5	2160.0	2195.0
52.5°	834.9	980.3	1155.4	1330.5	1492.1	1637.5	1758.8	1834.2	1893.4	1933.8	1966.1
55°	689.5	829.6	993.9	1158.1	1317.0	1454.4	1554.0	1610.6	1656.4	1680.6	1699.5
57.5°	562.9	692.2	843.0	993.9	1131.2	1244.3	1322.4	1379.0	1400.5	1419.4	1416.7
60°	441.7	562.9	700.3	829.6	948.1	1039.6	1096.2	1128.5	1144.6	1152.7	1147.3
62.5°	347.4	457.9	562.9	676.0	762.2	840.3	894.2	894.2	902.3	905.0	913.1
65°	258.5	342.0	433.6	517.1	587.1	638.3	668.0	676.0	686.8	684.1	678.7
67.5°	191.2	253.2	320.5	382.4	430.9	463.2	484.8	503.7	501.0	495.6	492.9
70°	132.0	172.4	231.6	269.3	304.3	336.7	342.0	344.7	347.4	350.1	344.7
72.5°	91.6	121.2	153.5	185.8	207.4	220.8	234.3	237.0	237.0	237.0	234.3
75°	45.8	61.9	91.6	105.0	123.9	129.3	140.0	140.0	148.1	137.3	134.6
77.5°	40.4	48.5	64.6	75.4	83.5	91.6	94.2	102.3	99.6	94.2	96.9
80°	24.3	29.7	40.4	45.8	56.5	59.2	61.9	64.6	61.9	64.6	64.6
82.5°	18.8	21.5	27.0	27.0	35.0	35.0	37.7	37.7	40.4	40.4	40.4
85°	10.7	18.8	16.1	32.3	21.5	21.5	27.0	32.3	27.0	27.0	32.3
87.5°	10.7	10.7	8.1	10.7	10.7	10.7	13.4	16.1	16.1	18.8	16.1
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: P249211

CATALOG NUMBER: LSR8B90D010 EC8B90835 8LBDW0WMH

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	5017.7	5017.7	5017.7	5017.7
2.5°	5025.8	5031.1	5023.1	5020.4
5°	5033.8	5033.8	5028.5	5028.5
7.5°	5033.8	5033.8	5025.8	5020.4
10°	5012.3	5012.3	5004.2	4998.8
12.5°	4971.9	4971.9	4969.2	4961.1
15°	4920.7	4920.7	4909.9	4901.9
17.5°	4850.7	4856.1	4842.6	4842.6
20°	4775.3	4772.6	4761.8	4756.4
22.5°	4697.2	4691.8	4689.1	4672.9
25°	4613.7	4608.3	4600.2	4592.1
27.5°	4470.9	4468.2	4460.1	4449.4
30°	4252.7	4250.0	4239.3	4239.3
32.5°	3970.0	3967.3	3956.5	3959.2
35°	3676.4	3687.2	3681.8	3671.0
37.5°	3431.3	3439.4	3444.8	3439.4
40°	3226.6	3250.8	3253.5	3259.0
42.5°	3008.5	3040.8	3051.6	3056.9
45°	2747.2	2776.8	2801.1	2795.7
47.5°	2480.5	2502.1	2523.6	2507.5
50°	2224.7	2238.1	2246.2	2246.2
52.5°	1982.3	1982.3	1979.6	1982.3
55°	1704.9	1704.9	1694.1	1699.5
57.5°	1414.0	1419.4	1411.3	1397.8
60°	1144.6	1131.2	1125.8	1117.8
62.5°	891.5	891.5	872.7	896.9
65°	668.0	659.9	651.8	649.1
67.5°	484.8	482.1	474.0	471.3
70°	342.0	331.3	328.6	323.2
72.5°	228.9	228.9	223.5	223.5
75°	140.0	126.6	123.9	126.6
77.5°	96.9	94.2	94.2	91.6
80°	64.6	61.9	67.4	59.2
82.5°	40.4	43.1	40.4	43.1
85°	27.0	32.3	29.7	29.7
87.5°	16.1	16.1	16.1	16.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)