

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: P250254

Luminaire Tested: **LSR8B90D010 EC8B90935 8LBSW0WH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P250254  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13955)  
Test Lab: INNOVATION CENTER-P1  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LSR8B90D010 EC8B90935 8LBSW0WH  
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
90 CRI 3500 CCT WITH WHEAT TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8195.0 lumens  
Efficiency: N/A  
Efficacy: 95.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.15  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

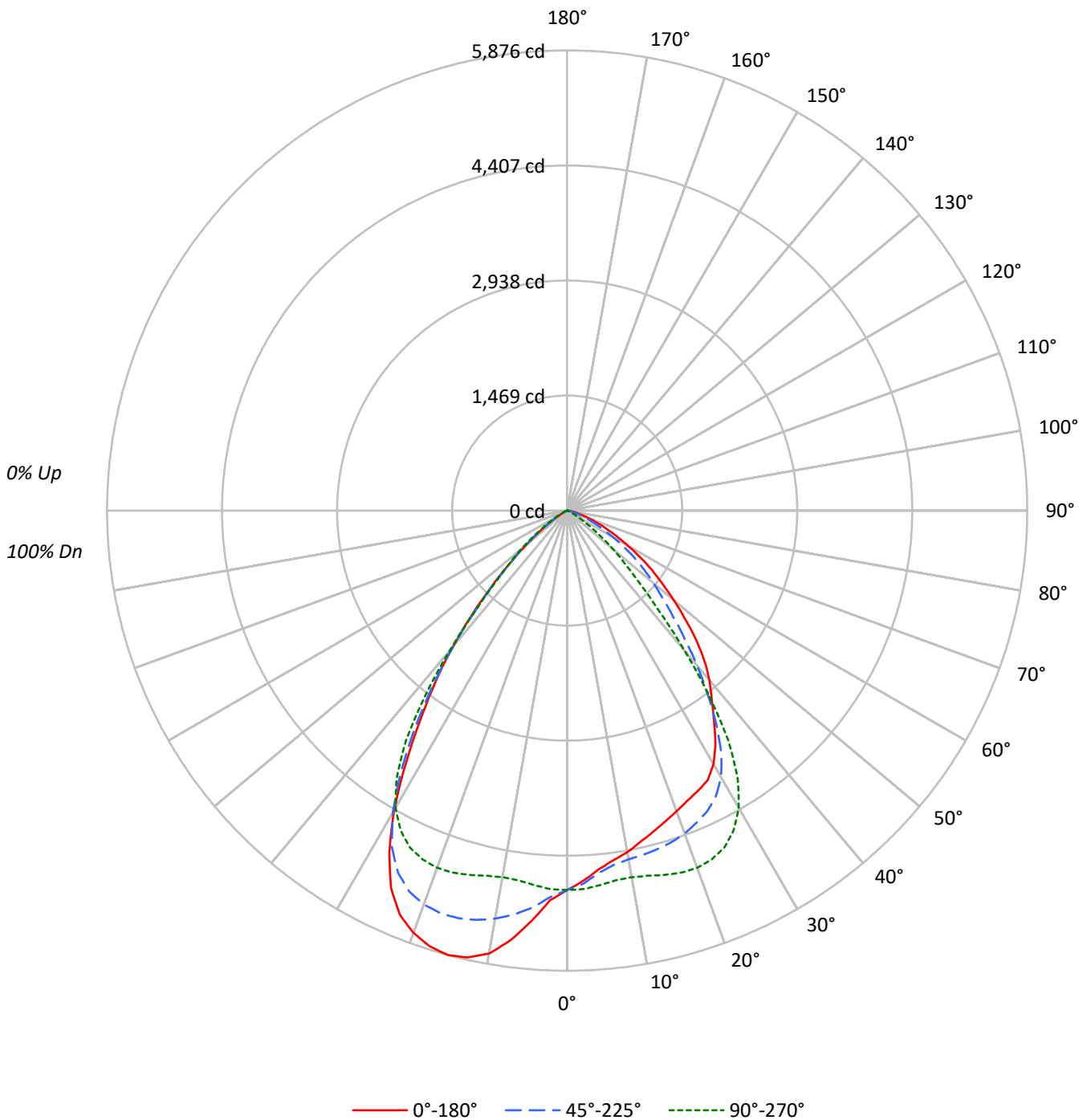
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	107	104	102	103	100	98	99	97	96	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	69	65	61	60
6	80	70	63	57	79	69	62	57	67	61	57	66	60	56	64	60	56	54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49
8	71	60	53	48	70	59	52	48	58	52	47	57	51	47	56	51	47	45
9	67	55	48	44	66	55	48	44	54	48	43	53	47	43	52	47	43	42
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	43	40	38

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

	0°	90°	180°
0°	149424	149424	149424
5°	142355	148592	162893
10°	138684	148823	179806
15°	135540	153756	187586
20°	134047	159312	188291
25°	134361	161560	180974
30°	133116	156014	157385
35°	123002	135018	123172
40°	113665	93611	91332
45°	101212	56483	58358
50°	85161	36392	33024
55°	70852	19962	15096
60°	55302	8659	4749
65°	40809	4298	2313
70°	28373	2660	1019
75°	17264	548	0
80°	12466	817	0
85°	7996	778	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	465.8	5.7
10°-20°	1394.2	17.0
20°-30°	2135.1	26.1
30°-40°	2093.1	25.5
40°-50°	1260.5	15.4
50°-60°	580.2	7.1
60°-70°	203.8	2.5
70°-80°	53.3	0.7
80°-90°	9.1	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°	3995.1	48.8
0°-40°	6088.2	74.3
0°-60°	7928.8	96.8
0°-90°	8195.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8195.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	4846	4846	4846	4846	4846	
5°	4599	4642	4800	5088	5262	434
15°	4246	4474	4816	5387	5876	1200
25°	3949	4234	4748	5106	5319	1819
35°	3268	3313	3587	3381	3272	2046
45°	2321	1911	1295	1304	1338	1780
55°	1318	1044	371	292	281	1176
65°	559	387	59	30	32	570
75°	145	84	5	0	0	176
85°	23	11	2	0	0	31
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°	4845.7	4845.7	4845.7	4845.7	4845.7	4845.7	4845.7	4845.7	4845.7	4845.7	4845.7
2.5°	4732.5	4737.0	4737.0	4737.0	4746.1	4748.4	4746.1	4748.4	4752.9	4768.7	4775.5
5°	4598.9	4592.1	4596.7	4594.4	4605.7	4612.5	4608.0	4614.8	4630.6	4642.0	4653.3
7.5°	4503.9	4503.9	4503.9	4508.3	4515.1	4528.7	4526.5	4531.0	4546.8	4562.7	4578.5
10°	4429.1	4426.9	4426.9	4438.1	4447.2	4463.0	4467.6	4481.2	4501.5	4521.9	4540.0
12.5°	4331.7	4334.0	4345.3	4356.7	4377.0	4401.9	4415.5	4433.7	4465.4	4499.3	4519.7
15°	4245.7	4247.9	4257.1	4279.6	4304.6	4334.0	4363.4	4392.8	4431.3	4474.4	4510.7
17.5°	4161.9	4164.1	4170.9	4195.9	4227.6	4266.1	4300.0	4338.5	4388.4	4438.1	4483.4
20°	4084.9	4082.7	4093.9	4116.6	4157.4	4193.6	4227.6	4272.9	4327.2	4388.4	4440.4
22.5°	4010.2	4010.2	4021.5	4044.2	4080.4	4116.6	4152.8	4200.4	4254.7	4313.6	4374.8
25°	3949.0	3946.8	3962.6	3974.0	4001.1	4037.4	4075.9	4114.4	4168.7	4234.4	4293.2
27.5°	3883.4	3881.2	3883.4	3897.0	3921.9	3949.0	3978.5	4012.5	4057.8	4112.1	4168.7
30°	3738.5	3740.7	3740.7	3752.1	3765.7	3795.0	3810.9	3844.9	3885.6	3930.9	3980.8
32.5°	3523.4	3525.6	3525.6	3530.2	3541.4	3555.0	3568.7	3593.5	3625.2	3663.7	3709.0
35°	3267.5	3267.5	3265.2	3267.5	3274.3	3274.3	3285.6	3274.3	3290.2	3312.8	3346.7
37.5°	3032.0	3027.4	3022.9	3018.4	3011.6	3000.3	2984.5	2957.2	2950.4	2941.4	2943.6
40°	2823.7	2821.4	2807.8	2796.5	2773.8	2746.7	2708.2	2660.7	2622.2	2576.9	2538.4
42.5°	2592.7	2590.4	2579.1	2558.7	2533.8	2493.1	2431.9	2368.6	2291.6	2223.6	2153.5
45°	2320.9	2327.7	2311.9	2289.3	2259.8	2221.3	2153.5	2076.4	1999.4	1911.1	1822.8
47.5°	2037.9	2035.6	2024.4	2010.8	1985.9	1947.4	1902.1	1818.3	1736.7	1655.3	1564.7
50°	1775.2	1766.2	1761.6	1748.1	1732.3	1700.6	1653.0	1585.0	1512.6	1435.6	1351.8
52.5°	1526.2	1526.2	1514.8	1505.8	1492.2	1467.3	1426.6	1372.2	1311.1	1238.6	1150.3
55°	1317.9	1313.3	1302.0	1290.7	1277.1	1261.2	1225.1	1179.8	1114.1	1043.9	966.9
57.5°	1096.0	1093.6	1089.2	1075.6	1068.8	1052.9	1012.2	966.9	910.3	849.2	785.7
60°	896.7	887.7	878.5	869.5	858.2	842.4	815.2	776.7	729.1	674.8	611.4
62.5°	717.9	731.4	704.2	704.2	681.6	668.0	643.1	620.5	570.6	520.8	466.5
65°	559.3	559.3	547.9	538.9	525.3	509.4	484.6	461.9	425.7	387.2	348.7
67.5°	428.0	425.7	414.4	405.3	394.0	384.9	366.8	339.6	312.5	280.8	249.0
70°	314.7	312.5	310.2	294.3	285.3	274.0	260.4	242.3	221.9	199.3	169.8
72.5°	226.4	226.4	219.7	212.9	203.8	194.7	181.2	169.8	151.7	135.9	115.5
75°	144.9	142.7	142.7	131.3	131.3	117.7	108.7	101.9	92.8	83.8	65.7
77.5°	104.2	101.9	99.6	95.1	90.6	86.0	79.2	70.2	63.4	54.3	47.5
80°	70.2	65.7	63.4	63.4	56.6	54.3	56.6	43.1	40.7	33.9	29.5
82.5°	43.1	43.1	40.7	40.7	38.5	36.3	29.5	29.5	27.2	24.9	20.4
85°	22.6	29.5	20.4	22.6	20.4	22.6	20.4	15.8	13.6	11.3	11.3
87.5°	13.6	9.0	9.0	13.6	11.3	9.0	9.0	9.0	6.8	4.6	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



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4845.7	4845.7	4845.7	4845.7	4845.7	4845.7	4845.7	4845.7	4845.7	4845.7	4845.7
2.5°	4771.1	4786.9	4784.6	4805.0	4811.8	4827.6	4827.6	4838.9	4845.7	4861.6	4875.2
5°	4657.8	4682.7	4689.5	4714.4	4734.8	4759.7	4775.5	4800.4	4823.1	4857.1	4888.8
7.5°	4587.6	4608.0	4621.6	4651.0	4673.7	4700.8	4728.0	4761.9	4793.6	4834.4	4879.7
10°	4553.6	4580.8	4601.2	4630.6	4657.8	4687.3	4714.4	4752.9	4789.1	4841.2	4891.0
12.5°	4544.6	4576.3	4601.2	4642.0	4669.1	4700.8	4732.5	4775.5	4814.0	4868.4	4925.0
15°	4544.6	4587.6	4621.6	4666.9	4698.6	4739.3	4773.3	4816.3	4859.3	4915.9	4970.2
17.5°	4535.5	4587.6	4630.6	4682.7	4723.4	4764.3	4807.2	4848.1	4893.3	4947.7	5008.7
20°	4499.3	4565.0	4617.0	4678.1	4721.2	4766.5	4809.6	4854.8	4902.4	4959.0	5011.1
22.5°	4435.9	4512.9	4571.8	4637.4	4687.3	4732.5	4775.5	4820.8	4872.9	4927.3	4981.6
25°	4352.1	4424.5	4488.0	4555.9	4605.7	4655.5	4696.3	4748.4	4796.0	4848.1	4891.0
27.5°	4225.3	4302.3	4363.4	4433.7	4478.9	4526.5	4560.4	4603.5	4648.8	4691.7	4725.8
30°	4035.1	4105.3	4168.7	4232.1	4277.4	4311.4	4347.6	4381.6	4411.0	4440.4	4469.8
32.5°	3756.5	3820.0	3881.2	3940.0	3976.2	4005.7	4032.8	4053.2	4069.1	4084.9	4087.1
35°	3374.0	3426.0	3464.5	3516.6	3550.6	3577.7	3577.7	3586.7	3584.5	3577.7	3570.9
37.5°	2946.0	2966.3	2982.1	3002.5	3004.8	3004.8	2991.3	2979.9	2961.8	2957.2	2943.6
40°	2499.9	2472.7	2452.3	2425.1	2409.3	2375.3	2345.9	2325.5	2296.1	2291.6	2287.0
42.5°	2076.4	2013.0	1956.4	1908.9	1854.6	1806.9	1764.0	1732.3	1709.6	1707.3	1709.6
45°	1732.3	1659.8	1576.0	1510.4	1449.2	1390.3	1333.7	1295.2	1274.8	1270.3	1274.8
47.5°	1471.9	1388.1	1306.5	1231.8	1166.2	1100.4	1043.9	991.8	966.9	960.1	957.8
50°	1265.8	1179.8	1093.6	1016.7	944.2	878.5	808.4	758.6	726.9	715.5	706.5
52.5°	1064.3	987.3	898.9	819.7	747.2	670.2	597.8	541.1	509.4	495.9	486.8
55°	887.7	810.7	729.1	652.1	575.2	498.2	425.7	371.3	337.4	321.6	310.2
57.5°	708.7	636.3	566.1	489.1	425.7	351.0	278.5	231.0	201.5	183.4	174.4
60°	547.9	491.4	430.2	366.8	305.7	244.6	185.7	140.4	117.7	104.2	92.8
62.5°	414.4	366.8	326.0	271.7	224.2	172.1	126.8	90.6	70.2	58.9	54.3
65°	298.9	262.6	226.4	192.5	158.5	120.0	86.0	58.9	40.7	33.9	31.7
67.5°	212.9	183.4	156.2	133.6	108.7	86.0	61.1	40.7	31.7	27.2	24.9
70°	149.4	126.8	108.7	88.4	72.4	56.6	47.5	29.5	18.1	20.4	15.8
72.5°	99.6	83.8	74.7	61.1	49.8	40.7	29.5	20.4	20.4	15.8	13.6
75°	54.3	49.8	38.5	29.5	24.9	22.6	9.0	4.6	2.2	6.8	2.2
77.5°	38.5	33.9	29.5	24.9	20.4	15.8	9.0	9.0	6.8	9.0	4.6
80°	24.9	20.4	18.1	18.1	11.3	6.8	4.6	4.6	6.8	2.2	2.2
82.5°	15.8	13.6	11.3	11.3	11.3	6.8	6.8	6.8	6.8	4.6	4.6
85°	9.0	6.8	4.6	4.6	2.2	4.6	0.0	2.2	2.2	0.0	0.0
87.5°	4.6	2.2	2.2	2.2	2.2	0.0	0.0	2.2	0.0	2.2	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



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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	4845.7	4845.7	4845.7	4845.7	4845.7	4845.7	4845.7	4845.7	4845.7	4845.7	4845.7
2.5°	4884.2	4893.3	4904.6	4913.7	4934.1	4938.6	4947.7	4956.7	4963.5	4970.2	4972.6
5°	4915.9	4949.9	4981.6	5015.5	5058.6	5088.0	5122.0	5151.4	5180.9	5205.8	5223.8
7.5°	4925.0	4977.0	5024.7	5083.5	5146.9	5201.3	5257.9	5314.4	5373.3	5418.6	5457.1
10°	4943.1	5006.5	5067.6	5137.8	5219.4	5291.8	5362.0	5436.7	5511.5	5574.8	5631.5
12.5°	4974.8	5045.0	5110.7	5187.7	5271.5	5352.9	5429.9	5513.7	5593.0	5663.2	5726.6
15°	5026.9	5092.5	5156.0	5228.4	5312.2	5387.0	5463.9	5545.4	5624.7	5697.1	5756.0
17.5°	5060.8	5122.0	5185.4	5251.1	5321.2	5389.2	5461.6	5534.1	5606.5	5672.2	5726.6
20°	5060.8	5119.7	5167.3	5226.2	5291.8	5350.7	5409.6	5473.0	5536.4	5590.7	5642.8
22.5°	5020.1	5076.7	5112.9	5158.2	5214.8	5264.7	5296.4	5366.5	5414.1	5461.6	5500.1
25°	4925.0	4965.8	4995.2	5026.9	5072.2	5106.1	5133.3	5174.1	5221.6	5239.8	5266.9
27.5°	4752.9	4782.3	4798.2	4805.0	4827.6	4845.7	4850.3	4868.4	4888.8	4893.3	4904.6
30°	4481.2	4483.4	4476.6	4474.4	4463.0	4449.5	4447.2	4444.9	4435.9	4426.9	4429.1
32.5°	4071.3	4060.0	4032.8	4003.4	3974.0	3942.3	3924.1	3901.5	3887.9	3874.4	3858.5
35°	3541.4	3514.3	3475.8	3439.6	3405.6	3380.7	3339.9	3326.3	3312.8	3294.6	3290.2
37.5°	2918.7	2902.9	2866.6	2839.5	2821.4	2810.1	2789.7	2776.1	2776.1	2769.3	2764.8
40°	2275.6	2271.2	2257.6	2264.4	2255.3	2259.8	2257.6	2253.0	2264.4	2264.4	2268.9
42.5°	1707.3	1709.6	1716.4	1720.9	1734.5	1736.7	1748.1	1748.1	1754.9	1761.6	1766.2
45°	1270.3	1279.4	1279.4	1288.4	1302.0	1304.3	1308.8	1311.1	1315.6	1326.9	1331.4
47.5°	953.3	955.5	955.5	957.8	962.3	966.9	964.7	966.9	973.7	969.1	973.7
50°	704.2	706.5	699.7	692.9	699.7	699.7	697.4	690.6	697.4	688.4	692.9
52.5°	480.1	477.8	471.0	473.3	468.7	466.5	466.5	461.9	461.9	461.9	452.9
55°	303.5	303.5	298.9	298.9	296.7	292.1	289.9	287.5	285.3	283.1	283.1
57.5°	169.8	172.1	165.3	163.0	165.3	163.0	158.5	158.5	158.5	151.7	156.2
60°	92.8	90.6	88.4	86.0	83.8	86.0	86.0	81.6	81.6	81.6	83.8
62.5°	49.8	49.8	47.5	47.5	45.3	45.3	49.8	43.1	45.3	43.1	45.3
65°	27.2	33.9	24.9	24.9	31.7	29.5	27.2	27.2	29.5	24.9	27.2
67.5°	29.5	20.4	18.1	20.4	18.1	18.1	18.1	22.6	20.4	15.8	20.4
70°	13.6	15.8	15.8	11.3	18.1	9.0	15.8	9.0	13.6	11.3	13.6
72.5°	13.6	13.6	13.6	9.0	13.6	9.0	11.3	11.3	9.0	9.0	13.6
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	4.6	4.6	2.2	2.2	2.2	2.2	4.6	4.6	4.6	0.0	2.2
80°	4.6	4.6	0.0	2.2	0.0	0.0	2.2	0.0	2.2	0.0	4.6
82.5°	2.2	4.6	2.2	2.2	4.6	4.6	4.6	2.2	2.2	2.2	2.2
85°	0.0	2.2	0.0	0.0	0.0	0.0	4.6	0.0	0.0	0.0	2.2
87.5°	0.0	2.2	0.0	0.0	0.0	0.0	2.2	2.2	0.0	0.0	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: P250254

CATALOG NUMBER: LSR8B90D010 EC8B90935 8LBSW0WH

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	4845.7	4845.7	4845.7	4845.7
2.5°	4974.8	4977.0	4981.6	4979.4
5°	5237.5	5255.6	5264.7	5262.4
7.5°	5484.3	5516.0	5534.1	5534.1
10°	5674.5	5710.7	5737.9	5742.4
12.5°	5776.4	5817.2	5853.4	5844.3
15°	5805.8	5846.6	5882.8	5876.0
17.5°	5771.9	5812.6	5839.8	5835.3
20°	5679.0	5713.0	5740.2	5737.9
22.5°	5534.1	5563.6	5586.2	5583.9
25°	5289.6	5310.0	5328.0	5319.0
27.5°	4913.7	4920.5	4931.7	4918.2
30°	4413.3	4417.7	4422.3	4420.1
32.5°	3851.7	3849.4	3844.9	3840.3
35°	3283.4	3283.4	3285.6	3272.0
37.5°	2767.0	2764.8	2771.6	2764.8
40°	2273.4	2271.2	2280.2	2268.9
42.5°	1773.0	1779.8	1782.0	1782.0
45°	1333.7	1336.0	1338.2	1338.2
47.5°	973.7	975.9	987.3	973.7
50°	688.4	690.6	692.9	688.4
52.5°	455.1	457.4	455.1	448.3
55°	278.5	280.8	280.8	280.8
57.5°	149.4	151.7	151.7	149.4
60°	81.6	79.2	81.6	77.0
62.5°	43.1	47.5	45.3	40.7
65°	27.2	27.2	27.2	31.7
67.5°	22.6	18.1	20.4	15.8
70°	13.6	15.8	15.8	11.3
72.5°	11.3	11.3	11.3	13.6
75°	0.0	0.0	0.0	0.0
77.5°	4.6	4.6	4.6	2.2
80°	2.2	0.0	2.2	0.0
82.5°	2.2	2.2	4.6	2.2
85°	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)