

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: P250212

Luminaire Tested: **LSR8B90D010 EC8B90830 8LBSW0WH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P250212  
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 EC8B90830 8LBSW0WH  
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 3000 CCT WITH WHEAT TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9241.0 lumens  
Efficiency: N/A  
Efficacy: 107.3 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

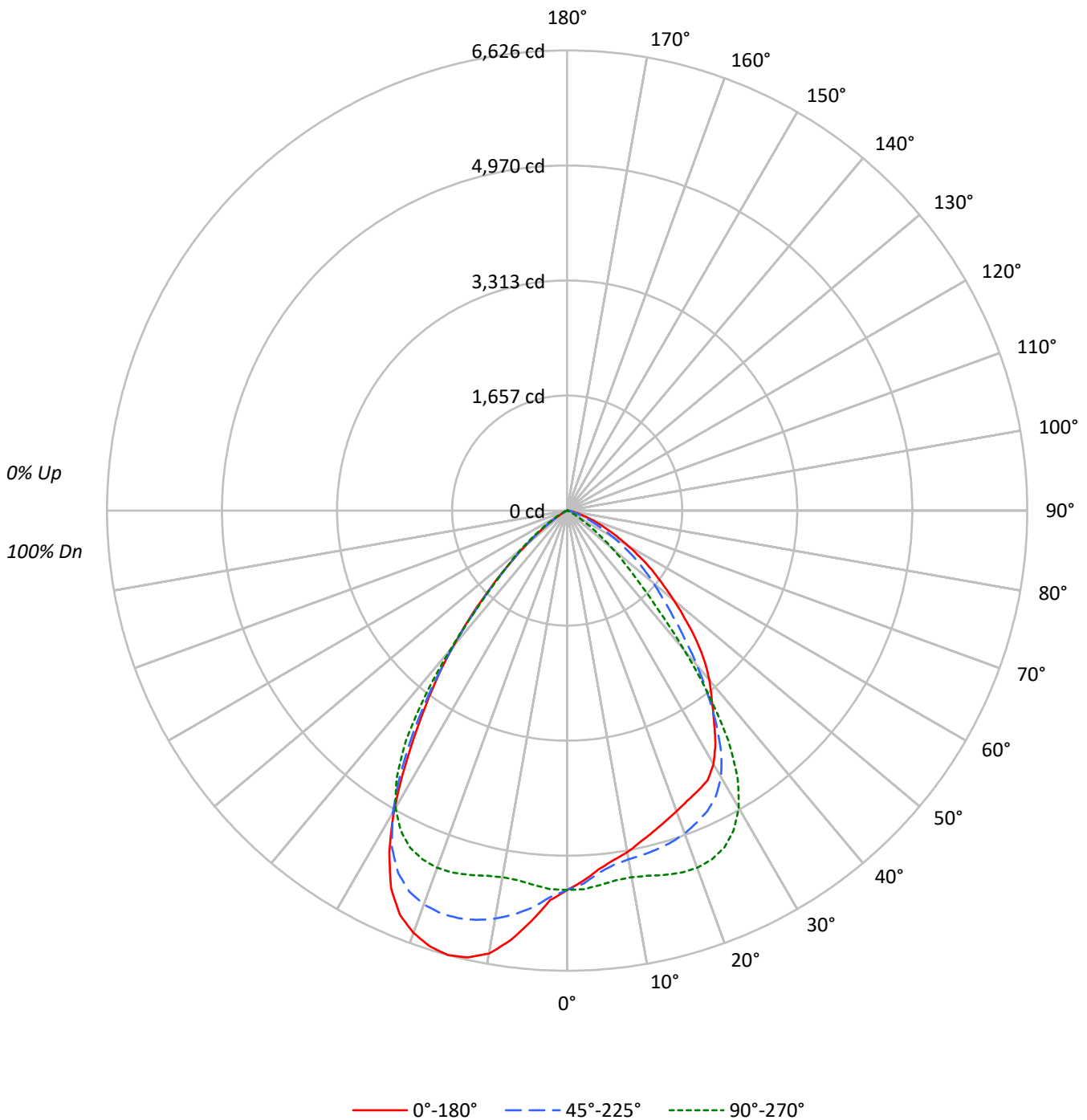
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	90°	180°
0°	168496	168496	168496
5°	160525	167558	183685
10°	156385	167817	202758
15°	152840	173380	211529
20°	151157	179644	212322
25°	151513	182182	204073
30°	150104	175926	177471
35°	138704	152252	138892
40°	128173	105558	102990
45°	114134	63696	65806
50°	96032	41036	37241
55°	79895	22510	17026
60°	62363	9763	5353
65°	46019	4845	2605
70°	31998	2993	1145
75°	19468	608	0
80°	14047	906	0
85°	9022	885	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	525.3	5.7
10°-20°	1572.2	17.0
20°-30°	2407.6	26.1
30°-40°	2360.2	25.5
40°-50°	1421.3	15.4
50°-60°	654.2	7.1
60°-70°	229.8	2.5
70°-80°	60.1	0.7
80°-90°	10.2	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°	4505.0	48.8
0°-40°	6865.3	74.3
0°-60°	8940.8	96.8
0°-90°	9241.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9241.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	5464	5464	5464	5464	5464	
5°	5186	5234	5413	5738	5934	490
15°	4788	5046	5431	6074	6626	1353
25°	4453	4775	5354	5758	5998	2051
35°	3685	3736	4044	3812	3690	2308
45°	2617	2155	1461	1471	1509	2007
55°	1486	1177	419	329	317	1326
65°	631	437	66	33	36	643
75°	163	94	5	0	0	198
85°	26	13	2	0	0	35
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°	5464.2	5464.2	5464.2	5464.2	5464.2	5464.2	5464.2	5464.2	5464.2	5464.2	5464.2
2.5°	5336.5	5341.7	5341.7	5341.7	5351.9	5354.5	5351.9	5354.5	5359.5	5377.4	5385.1
5°	5185.9	5178.2	5183.4	5180.8	5193.6	5201.3	5196.1	5203.8	5221.7	5234.5	5247.2
7.5°	5078.7	5078.7	5078.7	5083.8	5091.4	5106.8	5104.3	5109.3	5127.2	5145.0	5162.9
10°	4994.4	4991.9	4991.9	5004.6	5014.8	5032.7	5037.8	5053.2	5076.1	5099.1	5119.5
12.5°	4884.6	4887.2	4899.9	4912.8	4935.7	4963.7	4979.1	4999.6	5035.3	5073.6	5096.6
15°	4787.6	4790.1	4800.4	4825.8	4854.0	4887.2	4920.3	4953.5	4997.0	5045.5	5086.4
17.5°	4693.1	4695.6	4703.3	4731.5	4767.2	4810.6	4848.9	4892.3	4948.5	5004.6	5055.7
20°	4606.3	4603.8	4616.5	4642.0	4688.1	4728.8	4767.2	4818.3	4879.6	4948.5	5007.1
22.5°	4522.0	4522.0	4534.8	4560.4	4601.3	4642.0	4682.9	4736.5	4797.8	4864.2	4933.2
25°	4453.1	4450.5	4468.4	4481.2	4511.8	4552.7	4596.1	4639.5	4700.8	4774.9	4841.2
27.5°	4379.1	4376.5	4379.1	4394.4	4422.5	4453.1	4486.3	4524.6	4575.7	4637.0	4700.8
30°	4215.6	4218.2	4218.2	4231.0	4246.3	4279.4	4297.3	4335.7	4381.6	4432.7	4488.9
32.5°	3973.1	3975.6	3975.6	3980.7	3993.5	4008.8	4024.2	4052.2	4087.9	4131.4	4182.4
35°	3684.6	3684.6	3681.9	3684.6	3692.2	3692.2	3705.0	3692.2	3710.1	3735.7	3773.9
37.5°	3419.0	3413.8	3408.8	3403.6	3396.0	3383.3	3365.4	3334.7	3327.0	3316.8	3319.4
40°	3184.1	3181.6	3166.2	3153.4	3127.9	3097.3	3053.9	3000.3	2956.9	2905.8	2862.4
42.5°	2923.7	2921.0	2908.3	2885.3	2857.2	2811.3	2742.4	2670.9	2584.1	2507.5	2428.3
45°	2617.2	2624.9	2607.0	2581.5	2548.2	2504.8	2428.3	2341.4	2254.6	2155.1	2055.4
47.5°	2298.0	2295.5	2282.8	2267.4	2239.4	2195.9	2144.9	2050.4	1958.4	1866.6	1764.4
50°	2001.8	1991.6	1986.5	1971.2	1953.4	1917.6	1863.9	1787.3	1705.7	1618.8	1524.4
52.5°	1721.0	1721.0	1708.2	1698.0	1682.6	1654.6	1608.7	1547.4	1478.4	1396.7	1297.1
55°	1486.1	1481.0	1468.2	1455.4	1440.1	1422.2	1381.4	1330.3	1256.3	1177.1	1090.3
57.5°	1235.9	1233.2	1228.2	1212.8	1205.2	1187.3	1141.4	1090.3	1026.5	957.6	886.0
60°	1011.2	1001.0	990.7	980.5	967.8	949.9	919.2	875.8	822.2	760.9	689.5
62.5°	809.5	824.7	794.1	794.1	768.6	753.2	725.2	699.6	643.4	587.3	526.0
65°	630.7	630.7	617.9	607.7	592.3	574.5	546.4	520.9	480.0	436.6	393.2
67.5°	482.6	480.0	467.3	457.1	444.3	434.1	413.7	383.0	352.4	316.7	280.8
70°	354.9	352.4	349.8	331.9	321.7	309.0	293.6	273.3	250.2	224.7	191.5
72.5°	255.3	255.3	247.7	240.0	229.9	219.6	204.3	191.5	171.1	153.2	130.2
75°	163.4	160.9	160.9	148.1	148.1	132.7	122.5	114.9	104.7	94.5	74.1
77.5°	117.5	114.9	112.4	107.2	102.2	97.0	89.3	79.1	71.5	61.3	53.6
80°	79.1	74.1	71.5	71.5	63.8	61.3	63.8	48.6	45.9	38.3	33.2
82.5°	48.6	48.6	45.9	45.9	43.4	40.9	33.2	33.2	30.7	28.1	23.0
85°	25.5	33.2	23.0	25.5	23.0	25.5	23.0	17.9	15.3	12.7	12.7
87.5°	15.3	10.2	10.2	15.3	12.7	10.2	10.2	10.2	7.7	5.1	5.1
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°	5464.2	5464.2	5464.2	5464.2	5464.2	5464.2	5464.2	5464.2	5464.2	5464.2	5464.2
2.5°	5380.0	5397.9	5395.3	5418.3	5426.0	5443.8	5443.8	5456.6	5464.2	5482.1	5497.4
5°	5252.3	5280.4	5288.1	5316.1	5339.2	5367.2	5385.1	5413.1	5438.7	5477.0	5512.8
7.5°	5173.2	5196.1	5211.5	5244.7	5270.2	5300.8	5331.5	5369.7	5405.5	5451.5	5502.6
10°	5134.8	5165.5	5188.4	5221.7	5252.3	5285.6	5316.1	5359.5	5400.4	5459.2	5515.3
12.5°	5124.6	5160.4	5188.4	5234.5	5265.1	5300.8	5336.5	5385.1	5428.5	5489.8	5553.7
15°	5124.6	5160.4	5188.4	5234.5	5265.1	5300.8	5336.5	5385.1	5428.5	5489.8	5553.7
17.5°	5114.5	5173.2	5221.7	5280.4	5326.3	5372.4	5420.8	5466.9	5517.8	5579.2	5648.0
20°	5073.6	5147.7	5206.3	5275.3	5323.8	5374.9	5423.4	5474.4	5528.1	5591.9	5650.7
22.5°	5002.1	5088.9	5155.3	5229.3	5285.6	5336.5	5385.1	5436.2	5494.9	5556.2	5617.5
25°	4907.6	4989.3	5060.9	5137.4	5193.6	5249.7	5295.7	5354.5	5408.1	5466.9	5515.3
27.5°	4764.6	4851.4	4920.3	4999.6	5050.6	5104.3	5142.5	5191.1	5242.1	5290.6	5329.0
30°	4550.2	4629.3	4700.8	4772.2	4823.3	4861.7	4902.5	4940.8	4974.0	5007.1	5040.4
32.5°	4236.0	4307.6	4376.5	4442.9	4483.8	4517.0	4547.5	4570.6	4588.4	4606.3	4608.8
35°	3804.6	3863.2	3906.6	3965.4	4003.8	4034.3	4034.3	4044.5	4042.0	4034.3	4026.7
37.5°	3322.0	3344.9	3362.8	3385.8	3388.3	3388.3	3373.1	3360.2	3339.8	3334.7	3319.4
40°	2819.0	2788.3	2765.3	2734.7	2716.8	2678.5	2645.4	2622.3	2589.1	2584.1	2578.9
42.5°	2341.4	2269.9	2206.1	2152.5	2091.3	2037.6	1989.1	1953.4	1927.8	1925.2	1927.8
45°	1953.4	1871.6	1777.1	1703.1	1634.2	1567.8	1504.0	1460.6	1437.5	1432.4	1437.5
47.5°	1659.7	1565.2	1473.3	1389.0	1315.0	1240.9	1177.1	1118.4	1090.3	1082.6	1080.1
50°	1427.4	1330.3	1233.2	1146.4	1064.8	990.7	911.5	855.4	819.7	806.8	796.7
52.5°	1200.1	1113.3	1013.7	924.3	842.6	755.8	674.1	610.2	574.5	559.2	548.9
55°	1001.0	914.2	822.2	735.4	648.6	561.8	480.0	418.7	380.5	362.6	349.8
57.5°	799.2	717.5	638.4	551.6	480.0	395.8	314.0	260.4	227.2	206.8	196.6
60°	617.9	554.1	485.1	413.7	344.7	275.8	209.4	158.3	132.7	117.5	104.7
62.5°	467.3	413.7	367.6	306.4	252.8	194.0	143.0	102.2	79.1	66.4	61.3
65°	337.1	296.2	255.3	217.0	178.8	135.4	97.0	66.4	45.9	38.3	35.7
67.5°	240.0	206.8	176.1	150.6	122.5	97.0	68.9	45.9	35.7	30.7	28.1
70°	168.5	143.0	122.5	99.6	81.7	63.8	53.6	33.2	20.4	23.0	17.9
72.5°	112.4	94.5	84.3	68.9	56.1	45.9	33.2	23.0	23.0	17.9	15.3
75°	61.3	56.1	43.4	33.2	28.1	25.5	10.2	5.1	2.5	7.7	2.5
77.5°	43.4	38.3	33.2	28.1	23.0	17.9	10.2	10.2	7.7	10.2	5.1
80°	28.1	23.0	20.4	20.4	12.7	7.7	5.1	5.1	7.7	2.5	2.5
82.5°	17.9	15.3	12.7	12.7	12.7	7.7	7.7	7.7	7.7	5.1	5.1
85°	10.2	7.7	5.1	5.1	2.5	5.1	0.0	2.5	2.5	0.0	0.0
87.5°	5.1	2.5	2.5	2.5	2.5	0.0	0.0	2.5	0.0	2.5	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°	5464.2	5464.2	5464.2	5464.2	5464.2	5464.2	5464.2	5464.2	5464.2	5464.2	5464.2
2.5°	5507.6	5517.8	5530.6	5540.8	5563.9	5568.9	5579.2	5589.4	5597.1	5604.6	5607.3
5°	5543.4	5581.7	5617.5	5655.7	5704.3	5737.5	5775.7	5808.9	5842.2	5870.2	5890.6
7.5°	5553.7	5612.3	5666.0	5732.3	5803.8	5865.2	5929.0	5992.8	6059.2	6110.3	6153.7
10°	5574.1	5645.5	5714.5	5793.6	5885.6	5967.2	6046.4	6130.7	6214.9	6286.4	6350.3
12.5°	5609.8	5688.9	5763.0	5849.8	5944.3	6036.2	6123.0	6217.5	6306.9	6386.0	6457.5
15°	5668.5	5742.5	5814.1	5895.8	5990.2	6074.5	6161.3	6253.2	6342.6	6424.3	6490.7
17.5°	5706.8	5775.7	5847.2	5921.3	6000.4	6077.1	6158.7	6240.5	6322.1	6396.2	6457.5
20°	5706.8	5773.2	5826.8	5893.2	5967.2	6033.7	6100.1	6171.5	6243.0	6304.3	6363.0
22.5°	5660.9	5724.7	5765.5	5816.6	5880.4	5936.6	5972.4	6051.5	6105.1	6158.7	6202.1
25°	5553.7	5599.6	5632.8	5668.5	5719.6	5757.9	5788.6	5834.5	5888.1	5908.6	5939.2
27.5°	5359.5	5392.8	5410.6	5418.3	5443.8	5464.2	5469.4	5489.8	5512.8	5517.8	5530.6
30°	5053.2	5055.7	5048.0	5045.5	5032.7	5017.4	5014.8	5012.3	5002.1	4991.9	4994.4
32.5°	4591.0	4578.2	4547.5	4514.4	4481.2	4445.5	4425.0	4399.5	4384.1	4368.9	4351.0
35°	3993.5	3962.9	3919.5	3878.6	3840.3	3812.2	3766.2	3750.9	3735.7	3715.2	3710.1
37.5°	3291.3	3273.4	3232.5	3202.0	3181.6	3168.7	3145.7	3130.5	3130.5	3122.8	3117.7
40°	2566.1	2561.1	2545.7	2553.4	2543.2	2548.2	2545.7	2540.6	2553.4	2553.4	2558.5
42.5°	1925.2	1927.8	1935.5	1940.6	1955.9	1958.4	1971.2	1971.2	1978.9	1986.5	1991.6
45°	1432.4	1442.7	1442.7	1452.9	1468.2	1470.8	1475.8	1478.4	1483.5	1496.3	1501.3
47.5°	1075.0	1077.5	1077.5	1080.1	1085.2	1090.3	1087.8	1090.3	1098.0	1092.8	1098.0
50°	794.1	796.7	789.0	781.3	789.0	789.0	786.5	778.8	786.5	776.3	781.3
52.5°	541.4	538.7	531.1	533.7	528.5	526.0	526.0	520.9	520.9	520.9	510.7
55°	342.2	342.2	337.1	337.1	334.5	329.4	326.9	324.2	321.7	319.2	319.2
57.5°	191.5	194.0	186.4	183.8	186.4	183.8	178.8	178.8	178.8	171.1	176.1
60°	104.7	102.2	99.6	97.0	94.5	97.0	97.0	92.0	92.0	92.0	94.5
62.5°	56.1	56.1	53.6	53.6	51.1	51.1	56.1	48.6	51.1	48.6	51.1
65°	30.7	38.3	28.1	28.1	35.7	33.2	30.7	30.7	33.2	28.1	30.7
67.5°	33.2	23.0	20.4	23.0	20.4	20.4	20.4	25.5	23.0	17.9	23.0
70°	15.3	17.9	17.9	12.7	20.4	10.2	17.9	10.2	15.3	12.7	15.3
72.5°	15.3	15.3	15.3	10.2	15.3	10.2	12.7	12.7	10.2	10.2	15.3
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°	5.1	5.1	2.5	2.5	2.5	2.5	5.1	5.1	5.1	0.0	2.5
80°	5.1	5.1	0.0	2.5	0.0	0.0	2.5	0.0	2.5	0.0	5.1
82.5°	2.5	5.1	2.5	2.5	5.1	5.1	5.1	2.5	2.5	2.5	2.5
85°	0.0	2.5	0.0	0.0	0.0	0.0	5.1	0.0	0.0	0.0	2.5
87.5°	0.0	2.5	0.0	0.0	0.0	0.0	2.5	2.5	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: P250212

CATALOG NUMBER: LSR8B90D010 EC8B90830 8LBSW0WH

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	5464.2	5464.2	5464.2	5464.2
2.5°	5609.8	5612.3	5617.5	5614.9
5°	5906.0	5926.5	5936.6	5934.1
7.5°	6184.3	6220.1	6240.5	6240.5
10°	6398.8	6439.7	6470.2	6475.4
12.5°	6513.6	6559.7	6600.6	6590.3
15°	6546.9	6592.9	6633.7	6626.0
17.5°	6508.6	6554.5	6585.2	6580.1
20°	6403.9	6442.2	6472.9	6470.2
22.5°	6240.5	6273.7	6299.2	6296.6
25°	5964.7	5987.7	6008.1	5997.9
27.5°	5540.8	5548.5	5561.2	5546.0
30°	4976.6	4981.6	4986.8	4984.2
32.5°	4343.3	4340.7	4335.7	4330.5
35°	3702.4	3702.4	3705.0	3689.6
37.5°	3120.2	3117.7	3125.3	3117.7
40°	2563.6	2561.1	2571.3	2558.5
42.5°	1999.3	2007.0	2009.5	2009.5
45°	1504.0	1506.5	1509.0	1509.0
47.5°	1098.0	1100.5	1113.3	1098.0
50°	776.3	778.8	781.3	776.3
52.5°	513.2	515.8	513.2	505.5
55°	314.0	316.7	316.7	316.7
57.5°	168.5	171.1	171.1	168.5
60°	92.0	89.3	92.0	86.8
62.5°	48.6	53.6	51.1	45.9
65°	30.7	30.7	30.7	35.7
67.5°	25.5	20.4	23.0	17.9
70°	15.3	17.9	17.9	12.7
72.5°	12.7	12.7	12.7	15.3
75°	0.0	0.0	0.0	0.0
77.5°	5.1	5.1	5.1	2.5
80°	2.5	0.0	2.5	0.0
82.5°	2.5	2.5	5.1	2.5
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)