

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: P249722

Luminaire Tested: **LSR8B90D010 EC8B90840 8LBSWOLI**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249722  
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 EC8B90840 8LBSW0LI  
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 4000 CCT WITH SPECULAR CLEAR TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9900.0 lumens  
Efficiency: N/A  
Efficacy: 115.0 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

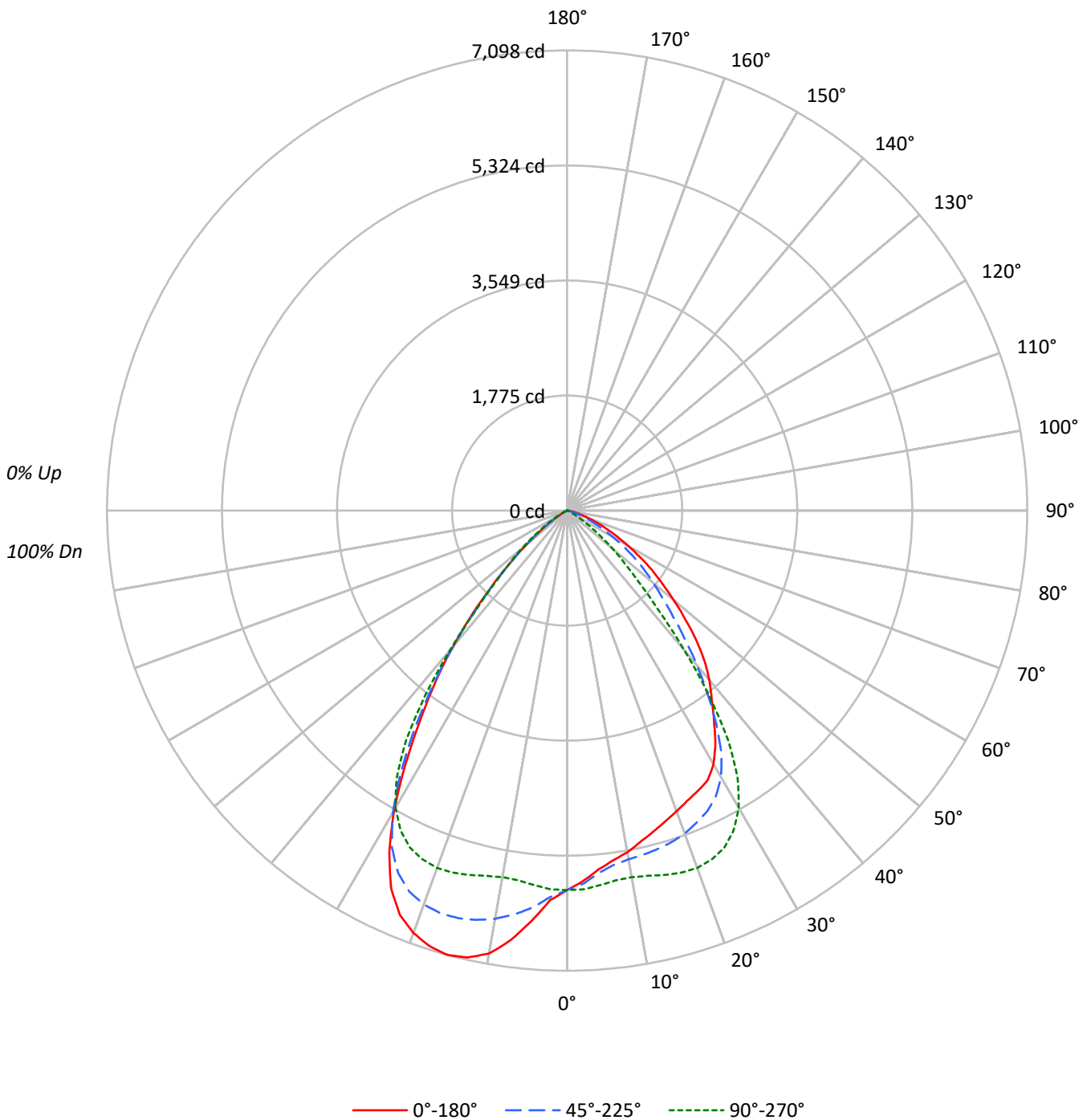
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	180513	180513	180513
5°	171972	179509	196785
10°	167538	179784	217218
15°	163739	185744	226613
20°	161937	192455	227463
25°	162315	195172	218625
30°	160811	188473	190129
35°	148593	163112	148796
40°	137314	113085	110336
45°	122271	68235	70499
50°	102882	43962	39894
55°	85594	24117	18236
60°	66810	10460	5736
65°	49302	5195	2795
70°	34279	3210	1226
75°	20862	655	0
80°	15059	977	0
85°	9694	955	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	562.8	5.7
10°-20°	1684.3	17.0
20°-30°	2579.3	26.1
30°-40°	2528.6	25.5
40°-50°	1522.7	15.4
50°-60°	700.8	7.1
60°-70°	246.2	2.5
70°-80°	64.4	0.7
80°-90°	11.0	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°	4826.3	48.8
0°-40°	7354.9	74.3
0°-60°	9578.4	96.8
0°-90°	9900.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9900.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	5854	5854	5854	5854	5854	
5°	5556	5608	5799	6147	6357	525
15°	5129	5405	5818	6508	7098	1449
25°	4771	5115	5736	6168	6426	2197
35°	3947	4002	4333	4084	3953	2472
45°	2804	2309	1565	1576	1617	2150
55°	1592	1261	449	353	339	1421
65°	676	468	71	36	38	688
75°	175	101	6	0	0	212
85°	27	14	3	0	0	38
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°	5853.9	5853.9	5853.9	5853.9	5853.9	5853.9	5853.9	5853.9	5853.9	5853.9	5853.9
2.5°	5717.1	5722.6	5722.6	5722.6	5733.5	5736.3	5733.5	5736.3	5741.7	5760.9	5769.1
5°	5555.7	5547.5	5553.0	5550.2	5564.0	5572.2	5566.7	5574.9	5594.0	5607.8	5621.4
7.5°	5440.9	5440.9	5440.9	5446.3	5454.5	5471.0	5468.3	5473.7	5492.8	5511.9	5531.1
10°	5350.6	5347.9	5347.9	5361.5	5372.4	5391.6	5397.1	5413.5	5438.1	5462.7	5484.6
12.5°	5232.9	5235.7	5249.4	5263.1	5287.7	5317.7	5334.2	5356.1	5394.4	5435.4	5460.0
15°	5129.0	5131.7	5142.7	5170.0	5200.2	5235.7	5271.2	5306.8	5353.3	5405.3	5449.1
17.5°	5027.8	5030.5	5038.7	5068.9	5107.2	5153.7	5194.7	5241.2	5301.4	5361.5	5416.2
20°	4934.8	4932.1	4945.7	4973.1	5022.4	5066.1	5107.2	5161.9	5227.5	5301.4	5364.2
22.5°	4844.5	4844.5	4858.2	4885.6	4929.4	4973.1	5016.9	5074.3	5139.9	5211.1	5285.0
25°	4770.6	4767.9	4787.1	4800.8	4833.6	4877.4	4923.9	4970.4	5036.0	5115.4	5186.4
27.5°	4691.4	4688.7	4691.4	4707.8	4737.9	4770.6	4806.2	4847.3	4902.0	4967.7	5036.0
30°	4516.3	4519.0	4519.0	4532.7	4549.1	4584.6	4603.8	4644.9	4694.1	4748.8	4809.0
32.5°	4256.4	4259.1	4259.1	4264.6	4278.2	4294.7	4311.1	4341.2	4379.5	4426.0	4480.7
35°	3947.3	3947.3	3944.5	3947.3	3955.6	3955.6	3969.2	3955.6	3974.7	4002.1	4043.0
37.5°	3662.8	3657.3	3651.9	3646.4	3638.1	3624.5	3605.4	3572.5	3564.3	3553.4	3556.1
40°	3411.2	3408.5	3392.0	3378.3	3350.9	3318.2	3271.7	3214.2	3167.7	3113.0	3066.5
42.5°	3132.1	3129.3	3115.7	3091.1	3061.0	3011.8	2937.9	2861.4	2768.4	2686.3	2601.5
45°	2803.8	2812.0	2792.9	2765.5	2730.0	2683.5	2601.5	2508.4	2415.4	2308.7	2202.0
47.5°	2461.9	2459.2	2445.5	2429.1	2399.0	2352.5	2297.8	2196.6	2098.1	1999.7	1890.2
50°	2144.6	2133.7	2128.1	2111.8	2092.7	2054.4	1996.9	1914.8	1827.3	1734.3	1633.1
52.5°	1843.7	1843.7	1830.0	1819.1	1802.6	1772.6	1723.4	1657.7	1583.9	1496.3	1389.6
55°	1592.1	1586.6	1572.9	1559.2	1542.8	1523.6	1479.9	1425.2	1345.8	1261.1	1168.1
57.5°	1324.0	1321.2	1315.8	1299.3	1291.1	1272.0	1222.8	1168.1	1099.7	1025.8	949.2
60°	1083.3	1072.3	1061.3	1050.4	1036.8	1017.6	984.7	938.2	880.8	815.2	738.6
62.5°	867.2	883.5	850.8	850.8	823.4	807.0	776.9	749.5	689.3	629.2	563.5
65°	675.7	675.7	661.9	651.0	634.6	615.4	585.4	558.0	514.2	467.7	421.2
67.5°	517.0	514.2	500.6	489.7	475.9	465.0	443.2	410.3	377.5	339.2	300.9
70°	380.2	377.5	374.7	355.6	344.7	331.0	314.6	292.7	268.1	240.7	205.1
72.5°	273.5	273.5	265.4	257.2	246.2	235.2	218.9	205.1	183.3	164.2	139.5
75°	175.1	172.4	172.4	158.6	158.6	142.2	131.3	123.1	112.1	101.2	79.4
77.5°	125.9	123.1	120.4	114.8	109.4	103.9	95.7	84.8	76.6	65.6	57.4
80°	84.8	79.4	76.6	76.6	68.3	65.6	68.3	52.0	49.2	41.0	35.6
82.5°	52.0	52.0	49.2	49.2	46.5	43.8	35.6	35.6	32.9	30.1	24.7
85°	27.4	35.6	24.7	27.4	24.7	27.4	24.7	19.1	16.4	13.6	13.6
87.5°	16.4	10.9	10.9	16.4	13.6	10.9	10.9	10.9	8.2	5.5	5.5
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°	5853.9	5853.9	5853.9	5853.9	5853.9	5853.9	5853.9	5853.9	5853.9	5853.9	5853.9
2.5°	5763.7	5782.8	5780.0	5804.7	5812.9	5832.0	5832.0	5845.7	5853.9	5873.0	5889.5
5°	5626.9	5657.0	5665.2	5695.2	5719.9	5750.0	5769.1	5799.2	5826.5	5867.6	5905.9
7.5°	5542.1	5566.7	5583.1	5618.7	5646.0	5678.8	5711.7	5752.7	5791.0	5840.3	5895.0
10°	5501.0	5533.9	5558.4	5594.0	5626.9	5662.5	5695.2	5741.7	5785.5	5848.5	5908.6
12.5°	5490.1	5528.4	5558.4	5607.8	5640.5	5678.8	5717.1	5769.1	5815.6	5881.3	5949.7
15°	5490.1	5542.1	5583.1	5637.8	5676.1	5725.3	5766.4	5818.3	5870.3	5938.7	6004.3
17.5°	5479.2	5542.1	5594.0	5657.0	5706.2	5755.5	5807.4	5856.7	5911.3	5977.1	6050.8
20°	5435.4	5514.8	5577.6	5651.4	5703.5	5758.2	5810.2	5864.8	5922.3	5990.7	6053.6
22.5°	5358.8	5451.8	5523.0	5602.2	5662.5	5717.1	5769.1	5823.8	5886.8	5952.4	6018.1
25°	5257.6	5345.1	5421.8	5503.7	5564.0	5624.1	5673.4	5736.3	5793.8	5856.7	5908.6
27.5°	5104.4	5197.4	5271.2	5356.1	5410.7	5468.3	5509.2	5561.3	5616.0	5667.9	5709.0
30°	4874.7	4959.4	5036.0	5112.6	5167.3	5208.4	5252.1	5293.2	5328.8	5364.2	5399.8
32.5°	4538.1	4614.8	4688.7	4759.7	4803.5	4839.1	4871.8	4896.5	4915.6	4934.8	4937.5
35°	4075.9	4138.7	4185.2	4248.2	4289.3	4322.0	4322.0	4333.0	4330.3	4322.0	4313.8
37.5°	3558.9	3583.4	3602.6	3627.2	3629.9	3629.9	3613.6	3599.9	3578.0	3572.5	3556.1
40°	3020.0	2987.1	2962.5	2929.7	2910.6	2869.5	2834.0	2809.3	2773.8	2768.4	2762.8
42.5°	2508.4	2431.8	2363.5	2306.0	2240.4	2182.9	2131.0	2092.7	2065.3	2062.5	2065.3
45°	2092.7	2005.1	1903.9	1824.6	1750.7	1679.6	1611.2	1564.7	1540.1	1534.5	1540.1
47.5°	1778.1	1676.9	1578.3	1488.0	1408.8	1329.4	1261.1	1198.1	1168.1	1159.8	1157.1
50°	1529.1	1425.2	1321.2	1228.2	1140.7	1061.3	976.5	916.4	878.1	864.4	853.5
52.5°	1285.7	1192.7	1086.0	990.3	902.7	809.7	722.2	653.7	615.4	599.1	588.1
55°	1072.3	979.3	880.8	787.8	694.8	601.8	514.2	448.6	407.6	388.5	374.7
57.5°	856.2	768.7	683.9	590.9	514.2	424.0	336.4	279.0	243.4	221.6	210.7
60°	661.9	593.6	519.7	443.2	369.3	295.4	224.3	169.6	142.2	125.9	112.1
62.5°	500.6	443.2	393.9	328.2	270.8	207.8	153.2	109.4	84.8	71.2	65.6
65°	361.1	317.3	273.5	232.5	191.5	145.0	103.9	71.2	49.2	41.0	38.3
67.5°	257.2	221.6	188.7	161.3	131.3	103.9	73.9	49.2	38.3	32.9	30.1
70°	180.5	153.2	131.3	106.7	87.5	68.3	57.4	35.6	21.8	24.7	19.1
72.5°	120.4	101.2	90.3	73.9	60.1	49.2	35.6	24.7	24.7	19.1	16.4
75°	65.6	60.1	46.5	35.6	30.1	27.4	10.9	5.5	2.7	8.2	2.7
77.5°	46.5	41.0	35.6	30.1	24.7	19.1	10.9	10.9	8.2	10.9	5.5
80°	30.1	24.7	21.8	21.8	13.6	8.2	5.5	5.5	8.2	2.7	2.7
82.5°	19.1	16.4	13.6	13.6	13.6	8.2	8.2	8.2	8.2	5.5	5.5
85°	10.9	8.2	5.5	5.5	2.7	5.5	0.0	2.7	2.7	0.0	0.0
87.5°	5.5	2.7	2.7	2.7	2.7	0.0	0.0	2.7	0.0	2.7	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°	5853.9	5853.9	5853.9	5853.9	5853.9	5853.9	5853.9	5853.9	5853.9	5853.9	5853.9
2.5°	5900.4	5911.3	5925.1	5936.0	5960.6	5966.0	5977.1	5988.0	5996.2	6004.3	6007.1
5°	5938.7	5979.8	6018.1	6059.0	6111.1	6146.6	6187.6	6223.2	6258.8	6288.8	6310.7
7.5°	5949.7	6012.5	6070.1	6141.1	6217.7	6283.4	6351.8	6420.1	6491.3	6546.0	6592.5
10°	5971.6	6048.1	6122.0	6206.8	6305.3	6392.8	6477.6	6567.9	6658.2	6734.7	6803.2
12.5°	6009.8	6094.6	6174.0	6267.0	6368.2	6466.6	6559.6	6660.9	6756.7	6841.5	6918.0
15°	6072.8	6152.0	6228.7	6316.2	6417.4	6507.7	6600.7	6699.1	6795.0	6882.4	6953.6
17.5°	6113.8	6187.6	6264.2	6343.6	6428.3	6510.4	6597.9	6685.5	6773.0	6852.4	6918.0
20°	6113.8	6184.9	6242.3	6313.5	6392.8	6463.9	6535.1	6611.7	6688.2	6753.9	6816.8
22.5°	6064.6	6132.9	6176.7	6231.4	6299.8	6360.0	6398.3	6483.1	6540.5	6597.9	6644.4
25°	5949.7	5998.9	6034.5	6072.8	6127.5	6168.5	6201.4	6250.6	6308.0	6329.9	6362.7
27.5°	5741.7	5777.3	5796.5	5804.7	5832.0	5853.9	5859.4	5881.3	5905.9	5911.3	5925.1
30°	5413.5	5416.2	5408.0	5405.3	5391.6	5375.3	5372.4	5369.7	5358.8	5347.9	5350.6
32.5°	4918.3	4904.7	4871.8	4836.4	4800.8	4762.5	4740.6	4713.2	4696.8	4680.4	4661.3
35°	4278.2	4245.5	4199.0	4155.2	4114.2	4084.0	4034.8	4018.4	4002.1	3980.1	3974.7
37.5°	3526.0	3506.9	3463.1	3430.3	3408.5	3394.7	3370.1	3353.7	3353.7	3345.5	3340.0
40°	2749.1	2743.7	2727.3	2735.5	2724.6	2730.0	2727.3	2721.7	2735.5	2735.5	2741.0
42.5°	2062.5	2065.3	2073.5	2078.9	2095.4	2098.1	2111.8	2111.8	2120.0	2128.1	2133.7
45°	1534.5	1545.6	1545.6	1556.5	1572.9	1575.6	1581.0	1583.9	1589.3	1603.0	1608.4
47.5°	1151.6	1154.3	1154.3	1157.1	1162.5	1168.1	1165.4	1168.1	1176.3	1170.8	1176.3
50°	850.8	853.5	845.2	837.0	845.2	845.2	842.5	834.3	842.5	831.6	837.0
52.5°	580.0	577.2	568.9	571.8	566.2	563.5	563.5	558.0	558.0	558.0	547.1
55°	366.6	366.6	361.1	361.1	358.4	352.9	350.2	347.4	344.7	341.9	341.9
57.5°	205.1	207.8	199.7	196.9	199.7	196.9	191.5	191.5	191.5	183.3	188.7
60°	112.1	109.4	106.7	103.9	101.2	103.9	103.9	98.5	98.5	98.5	101.2
62.5°	60.1	60.1	57.4	57.4	54.7	54.7	60.1	52.0	54.7	52.0	54.7
65°	32.9	41.0	30.1	30.1	38.3	35.6	32.9	32.9	35.6	30.1	32.9
67.5°	35.6	24.7	21.8	24.7	21.8	21.8	21.8	27.4	24.7	19.1	24.7
70°	16.4	19.1	19.1	13.6	21.8	10.9	19.1	10.9	16.4	13.6	16.4
72.5°	16.4	16.4	16.4	10.9	16.4	10.9	13.6	13.6	10.9	10.9	16.4
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°	5.5	5.5	2.7	2.7	2.7	2.7	5.5	5.5	5.5	0.0	2.7
80°	5.5	5.5	0.0	2.7	0.0	0.0	2.7	0.0	2.7	0.0	5.5
82.5°	2.7	5.5	2.7	2.7	5.5	5.5	5.5	2.7	2.7	2.7	2.7
85°	0.0	2.7	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0	2.7
87.5°	0.0	2.7	0.0	0.0	0.0	0.0	2.7	2.7	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: P249722

CATALOG NUMBER: LSR8B90D010 EC8B90840 8LBSWOLI

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	5853.9	5853.9	5853.9	5853.9
2.5°	6009.8	6012.5	6018.1	6015.4
5°	6327.1	6349.1	6360.0	6357.3
7.5°	6625.3	6663.7	6685.5	6685.5
10°	6855.1	6898.9	6931.6	6937.2
12.5°	6978.1	7027.5	7071.3	7060.2
15°	7013.7	7063.0	7106.7	7098.5
17.5°	6972.7	7021.9	7054.8	7049.3
20°	6860.6	6901.6	6934.5	6931.6
22.5°	6685.5	6721.1	6748.5	6745.6
25°	6390.1	6414.7	6436.6	6425.6
27.5°	5936.0	5944.2	5957.8	5941.5
30°	5331.5	5336.9	5342.4	5339.7
32.5°	4653.1	4650.3	4644.9	4639.3
35°	3966.5	3966.5	3969.2	3952.7
37.5°	3342.7	3340.0	3348.2	3340.0
40°	2746.4	2743.7	2754.6	2741.0
42.5°	2141.9	2150.1	2152.8	2152.8
45°	1611.2	1613.9	1616.6	1616.6
47.5°	1176.3	1179.0	1192.7	1176.3
50°	831.6	834.3	837.0	831.6
52.5°	549.8	552.6	549.8	541.6
55°	336.4	339.2	339.2	339.2
57.5°	180.5	183.3	183.3	180.5
60°	98.5	95.7	98.5	93.0
62.5°	52.0	57.4	54.7	49.2
65°	32.9	32.9	32.9	38.3
67.5°	27.4	21.8	24.7	19.1
70°	16.4	19.1	19.1	13.6
72.5°	13.6	13.6	13.6	16.4
75°	0.0	0.0	0.0	0.0
77.5°	5.5	5.5	5.5	2.7
80°	2.7	0.0	2.7	0.0
82.5°	2.7	2.7	5.5	2.7
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)