

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: P249729

Luminaire Tested: **LD8B90D010 ER8B90850 8LBSW0LI**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249729  
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: LD8B90D010 ER8B90850 8LBSW0LI  
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT  
80 CRI 5000 CCT WITH SPECULAR CLEAR TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10094.0 lumens  
Efficiency: N/A  
Efficacy: 117.2 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

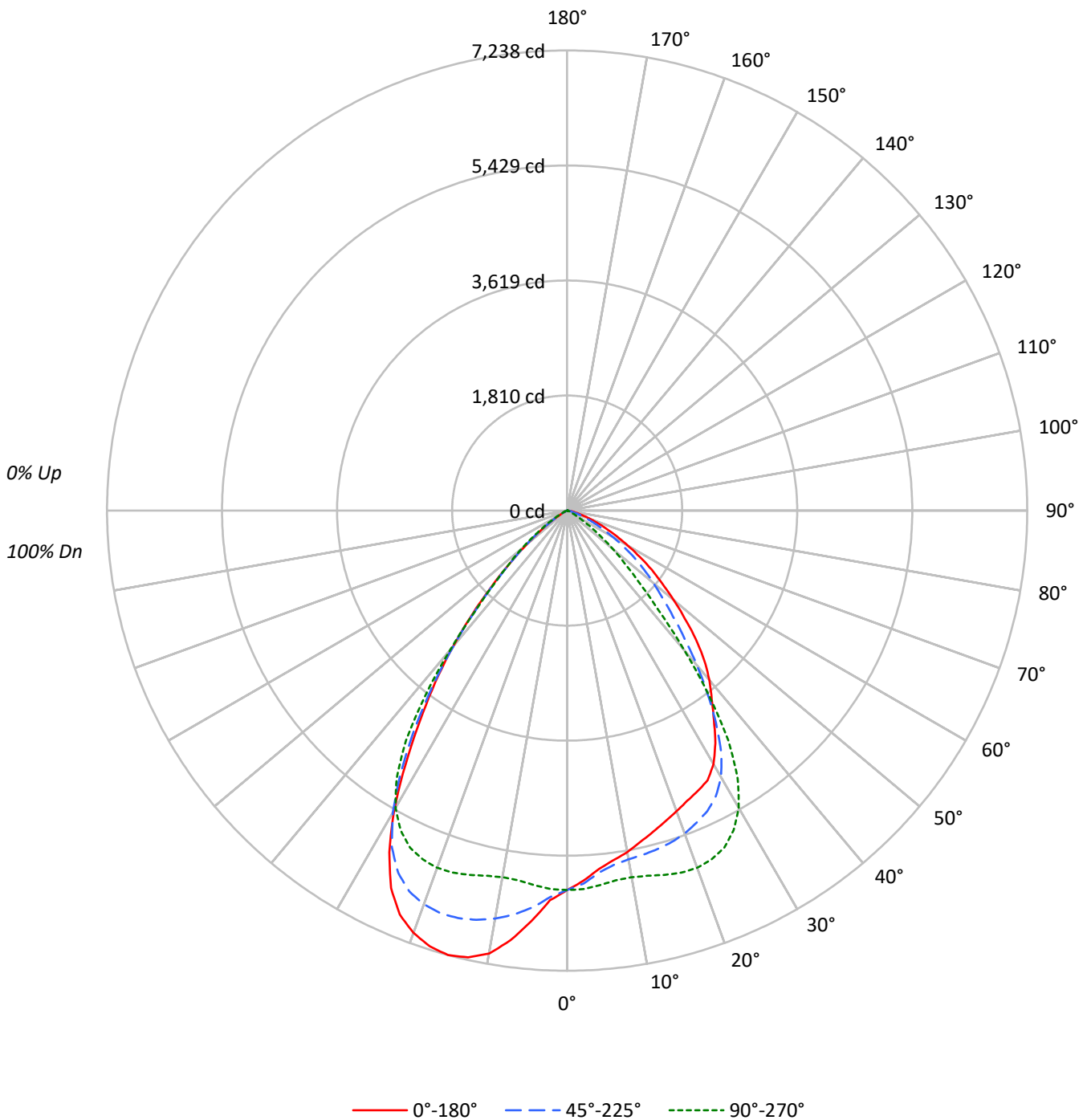
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P249729

CATALOG NUMBER: LD8B90D010 ER8B90850 8LBSW0LI

### Luminous Intensity Polar Plot





TEST NUMBER: P249729

CATALOG NUMBER: LD8B90D010 ER8B90850 8LBSW0LI

**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°	184050	184050	184050
5°	175343	183025	200641
10°	170820	183310	221473
15°	166947	189383	231054
20°	165110	196226	231922
25°	165497	199000	222912
30°	163962	192166	193854
35°	151507	166308	151714
40°	140003	115303	112498
45°	124670	69574	71881
50°	104897	44826	40676
55°	87271	24590	18596
60°	68117	10663	5847
65°	50266	5297	2846
70°	34955	3273	1253
75°	21267	667	0
80°	15343	994	0
85°	9871	991	0



TEST NUMBER: P249729

CATALOG NUMBER: LD8B90D010 ER8B90850 8LBSW0LI

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	573.8	5.7
10°-20°	1717.3	17.0
20°-30°	2629.8	26.1
30°-40°	2578.1	25.5
40°-50°	1552.5	15.4
50°-60°	714.6	7.1
60°-70°	251.0	2.5
70°-80°	65.7	0.7
80°-90°	11.2	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°	4920.9	48.8
0°-40°	7499.0	74.3
0°-60°	9766.1	96.8
0°-90°	10094.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10094.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	5969	5969	5969	5969	5969	
5°	5665	5718	5913	6267	6482	535
15°	5230	5511	5932	6635	7238	1477
25°	4864	5216	5849	6289	6552	2240
35°	4025	4080	4418	4164	4030	2521
45°	2859	2354	1595	1606	1648	2192
55°	1623	1286	457	360	346	1448
65°	689	477	73	36	39	702
75°	178	103	6	0	0	216
85°	28	14	3	0	0	38
90°	0	0	0	0	0	



TEST NUMBER: P249729

CATALOG NUMBER: LD8B90D010 ER8B90850 8LBSW0LI

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	5968.6	5968.6	5968.6	5968.6	5968.6	5968.6	5968.6	5968.6	5968.6	5968.6	5968.6
2.5°	5829.1	5834.7	5834.7	5834.7	5845.9	5848.8	5845.9	5848.8	5854.3	5873.8	5882.2
5°	5664.6	5656.2	5661.9	5659.0	5673.0	5681.4	5675.7	5684.1	5703.6	5717.6	5731.5
7.5°	5547.5	5547.5	5547.5	5553.0	5561.4	5578.2	5575.4	5580.9	5600.4	5620.0	5639.5
10°	5455.4	5452.7	5452.7	5466.6	5477.7	5497.2	5502.9	5519.6	5544.6	5569.8	5592.1
12.5°	5335.5	5338.3	5352.2	5366.2	5391.3	5421.9	5438.7	5461.1	5500.1	5541.9	5567.0
15°	5229.5	5232.3	5243.5	5271.3	5302.1	5338.3	5374.5	5410.8	5458.2	5511.2	5555.9
17.5°	5126.3	5129.1	5137.4	5168.2	5207.2	5254.7	5296.4	5343.9	5405.3	5466.6	5522.4
20°	5031.5	5028.7	5042.6	5070.5	5120.8	5165.3	5207.2	5263.0	5330.0	5405.3	5469.3
22.5°	4939.4	4939.4	4953.4	4981.3	5026.0	5070.5	5115.2	5173.7	5240.7	5313.2	5388.5
25°	4864.1	4861.4	4880.9	4894.9	4928.3	4972.9	5020.3	5067.8	5134.7	5215.6	5288.1
27.5°	4783.3	4780.5	4783.3	4800.0	4830.7	4864.1	4900.4	4942.3	4998.1	5065.0	5134.7
30°	4604.8	4607.5	4607.5	4621.5	4638.3	4674.5	4694.0	4735.9	4786.0	4841.8	4903.3
32.5°	4339.8	4342.6	4342.6	4348.2	4362.1	4378.8	4395.6	4426.3	4465.3	4512.7	4568.5
35°	4024.7	4024.7	4021.8	4024.7	4033.1	4033.1	4047.0	4033.1	4052.6	4080.5	4122.3
37.5°	3734.6	3729.0	3723.4	3717.8	3709.4	3695.5	3676.0	3642.5	3634.1	3623.0	3625.8
40°	3478.0	3475.2	3458.5	3444.5	3416.6	3383.2	3335.8	3277.2	3229.8	3174.0	3126.6
42.5°	3193.5	3190.7	3176.8	3151.6	3121.0	3070.8	2995.5	2917.4	2822.6	2738.9	2652.5
45°	2858.8	2867.1	2847.6	2819.7	2783.5	2736.0	2652.5	2557.5	2462.7	2354.0	2245.2
47.5°	2510.1	2507.4	2493.5	2476.7	2446.1	2398.6	2342.9	2239.6	2139.2	2038.9	1927.3
50°	2186.6	2175.5	2169.8	2153.2	2133.7	2094.7	2036.0	1952.3	1863.1	1768.3	1665.1
52.5°	1879.9	1879.9	1865.9	1854.7	1838.0	1807.3	1757.1	1690.2	1614.9	1525.6	1416.9
55°	1623.3	1617.7	1603.8	1589.8	1573.0	1553.5	1508.9	1453.1	1372.2	1285.8	1190.9
57.5°	1349.9	1347.1	1341.6	1324.8	1316.4	1296.9	1246.7	1190.9	1121.3	1045.9	967.8
60°	1104.5	1093.4	1082.1	1071.0	1057.1	1037.6	1004.0	956.6	898.1	831.2	753.1
62.5°	884.2	900.8	867.4	867.4	839.5	822.8	792.1	764.2	702.8	641.5	574.6
65°	688.9	688.9	674.9	663.8	647.0	627.5	596.8	569.0	524.3	476.9	429.5
67.5°	527.2	524.3	510.4	499.3	485.3	474.1	451.9	418.3	384.9	345.9	306.7
70°	387.7	384.9	382.1	362.5	351.4	337.5	320.8	298.5	273.3	245.4	209.2
72.5°	278.9	278.9	270.6	262.2	251.1	239.8	223.2	209.2	186.9	167.4	142.2
75°	178.5	175.8	175.8	161.8	161.8	145.0	133.9	125.5	114.3	103.2	80.9
77.5°	128.3	125.5	122.7	117.1	111.6	106.0	97.6	86.4	78.1	66.9	58.5
80°	86.4	80.9	78.1	78.1	69.7	66.9	69.7	53.0	50.2	41.8	36.3
82.5°	53.0	53.0	50.2	50.2	47.4	44.7	36.3	36.3	33.5	30.7	25.1
85°	27.9	36.3	25.1	27.9	25.1	27.9	25.1	19.5	16.8	13.9	13.9
87.5°	16.8	11.1	11.1	16.8	13.9	11.1	11.1	11.1	8.4	5.6	5.6
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: P249729

CATALOG NUMBER: LD8B90D010 ER8B90850 8LBSW01

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	5968.6	5968.6	5968.6	5968.6	5968.6	5968.6	5968.6	5968.6	5968.6	5968.6	5968.6
2.5°	5876.6	5896.2	5893.3	5918.4	5926.8	5946.3	5946.3	5960.2	5968.6	5988.1	6004.9
5°	5737.2	5767.8	5776.2	5806.8	5832.0	5862.6	5882.2	5912.8	5940.7	5982.6	6021.6
7.5°	5650.7	5675.7	5692.5	5728.8	5756.7	5790.1	5823.6	5865.4	5904.4	5954.7	6010.5
10°	5608.8	5642.3	5667.4	5703.6	5737.2	5773.4	5806.8	5854.3	5898.9	5963.1	6024.4
12.5°	5597.7	5636.7	5667.4	5717.6	5751.1	5790.1	5829.1	5882.2	5929.6	5996.5	6066.3
15°	5597.7	5650.7	5692.5	5748.3	5787.3	5837.5	5879.4	5932.3	5985.4	6055.0	6122.0
17.5°	5586.5	5650.7	5703.6	5767.8	5818.0	5868.3	5921.2	5971.5	6027.2	6094.2	6169.4
20°	5541.9	5622.8	5686.9	5762.2	5815.2	5871.0	5924.1	5979.7	6038.4	6108.1	6172.3
22.5°	5463.8	5558.7	5631.2	5712.0	5773.4	5829.1	5882.2	5938.0	6002.1	6069.1	6136.0
25°	5360.6	5449.8	5528.0	5611.6	5673.0	5734.3	5784.6	5848.8	5907.3	5971.5	6024.4
27.5°	5204.4	5299.2	5374.5	5461.1	5516.7	5575.4	5617.2	5670.2	5726.0	5779.0	5820.9
30°	4970.2	5056.6	5134.7	5212.8	5268.5	5310.5	5355.0	5396.9	5433.2	5469.3	5505.6
32.5°	4627.0	4705.2	4780.5	4853.0	4897.6	4933.9	4967.3	4992.5	5012.0	5031.5	5034.2
35°	4155.8	4219.8	4267.3	4331.4	4373.3	4406.7	4406.7	4417.9	4415.1	4406.7	4398.4
37.5°	3628.6	3653.6	3673.2	3698.3	3701.1	3701.1	3684.4	3670.4	3648.1	3642.5	3625.8
40°	3079.2	3045.7	3020.5	2987.1	2967.6	2925.7	2889.5	2864.4	2828.1	2822.6	2817.0
42.5°	2557.5	2479.5	2409.8	2351.2	2284.3	2225.6	2172.7	2133.7	2105.8	2102.9	2105.8
45°	2133.7	2044.4	1941.2	1860.3	1785.0	1712.5	1642.8	1595.4	1570.2	1564.6	1570.2
47.5°	1812.9	1709.7	1609.3	1517.2	1436.4	1355.5	1285.8	1221.6	1190.9	1182.6	1179.8
50°	1559.1	1453.1	1347.1	1252.2	1163.0	1082.1	995.7	934.4	895.3	881.3	870.2
52.5°	1310.9	1216.1	1107.3	1009.7	920.4	825.5	736.3	666.5	627.5	610.9	599.6
55°	1093.4	998.5	898.1	803.3	708.4	613.6	524.3	457.4	415.6	396.1	382.1
57.5°	872.9	783.7	697.3	602.5	524.3	432.3	343.0	284.5	248.2	225.9	214.8
60°	674.9	605.2	529.9	451.9	376.5	301.2	228.7	172.9	145.0	128.3	114.3
62.5°	510.4	451.9	401.6	334.6	276.1	211.9	156.2	111.6	86.4	72.6	66.9
65°	368.2	323.5	278.9	237.1	195.3	147.9	106.0	72.6	50.2	41.8	39.0
67.5°	262.2	225.9	192.4	164.5	133.9	106.0	75.3	50.2	39.0	33.5	30.7
70°	184.0	156.2	133.9	108.8	89.2	69.7	58.5	36.3	22.3	25.1	19.5
72.5°	122.7	103.2	92.1	75.3	61.3	50.2	36.3	25.1	25.1	19.5	16.8
75°	66.9	61.3	47.4	36.3	30.7	27.9	11.1	5.6	2.8	8.4	2.8
77.5°	47.4	41.8	36.3	30.7	25.1	19.5	11.1	11.1	8.4	11.1	5.6
80°	30.7	25.1	22.3	22.3	13.9	8.4	5.6	5.6	8.4	2.8	2.8
82.5°	19.5	16.8	13.9	13.9	13.9	8.4	8.4	8.4	8.4	5.6	5.6
85°	11.1	8.4	5.6	5.6	2.8	5.6	0.0	2.8	2.8	0.0	0.0
87.5°	5.6	2.8	2.8	2.8	2.8	0.0	0.0	2.8	0.0	2.8	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: P249729

CATALOG NUMBER: LD8B90D010 ER8B90850 8LBSW01

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	5968.6	5968.6	5968.6	5968.6	5968.6	5968.6	5968.6	5968.6	5968.6	5968.6	5968.6
2.5°	6016.0	6027.2	6041.2	6052.3	6077.4	6082.9	6094.2	6105.3	6113.7	6122.0	6124.8
5°	6055.0	6097.0	6136.0	6177.8	6230.8	6267.1	6308.9	6345.1	6381.4	6412.1	6434.4
7.5°	6066.3	6130.4	6189.0	6261.5	6339.5	6406.6	6476.3	6545.9	6618.5	6674.3	6721.7
10°	6088.6	6166.6	6241.9	6328.4	6428.8	6518.0	6604.5	6696.6	6788.6	6866.7	6936.5
12.5°	6127.6	6214.0	6295.0	6389.8	6493.0	6593.3	6688.2	6791.4	6889.1	6975.5	7053.6
15°	6191.8	6272.6	6350.8	6440.0	6543.2	6635.3	6730.1	6830.4	6928.1	7017.3	7089.9
17.5°	6233.6	6308.9	6386.9	6467.9	6554.3	6638.0	6727.2	6816.5	6905.7	6986.7	7053.6
20°	6233.6	6306.1	6364.7	6437.2	6518.0	6590.6	6663.1	6741.2	6819.3	6886.2	6950.4
22.5°	6183.4	6253.1	6297.7	6353.5	6423.2	6484.6	6523.7	6610.1	6668.7	6727.2	6774.6
25°	6066.3	6116.5	6152.7	6191.8	6247.6	6289.4	6322.9	6373.0	6431.6	6454.0	6487.4
27.5°	5854.3	5890.5	5910.1	5918.4	5946.3	5968.6	5974.2	5996.5	6021.6	6027.2	6041.2
30°	5519.6	5522.4	5514.0	5511.2	5497.2	5480.6	5477.7	5475.0	5463.8	5452.7	5455.4
32.5°	5014.7	5000.8	4967.3	4931.1	4894.9	4855.8	4833.5	4805.6	4788.8	4772.2	4752.6
35°	4362.1	4328.7	4281.3	4236.6	4194.8	4164.1	4113.9	4097.1	4080.5	4058.1	4052.6
37.5°	3595.1	3575.6	3530.9	3497.5	3475.2	3461.2	3436.1	3419.5	3419.5	3411.1	3405.4
40°	2803.0	2797.5	2780.7	2789.1	2777.9	2783.5	2780.7	2775.1	2789.1	2789.1	2794.7
42.5°	2102.9	2105.8	2114.2	2119.7	2136.4	2139.2	2153.2	2153.2	2161.6	2169.8	2175.5
45°	1564.6	1575.9	1575.9	1587.0	1603.8	1606.5	1612.0	1614.9	1620.4	1634.4	1639.9
47.5°	1174.2	1176.9	1176.9	1179.8	1185.3	1190.9	1188.2	1190.9	1199.3	1193.7	1199.3
50°	867.4	870.2	861.8	853.4	861.8	861.8	859.1	850.7	859.1	847.9	853.4
52.5°	591.3	588.5	580.1	583.0	577.3	574.6	574.6	569.0	569.0	569.0	557.8
55°	373.8	373.8	368.2	368.2	365.4	359.8	357.0	354.2	351.4	348.6	348.6
57.5°	209.2	211.9	203.7	200.8	203.7	200.8	195.3	195.3	195.3	186.9	192.4
60°	114.3	111.6	108.8	106.0	103.2	106.0	106.0	100.5	100.5	100.5	103.2
62.5°	61.3	61.3	58.5	58.5	55.8	55.8	61.3	53.0	55.8	53.0	55.8
65°	33.5	41.8	30.7	30.7	39.0	36.3	33.5	33.5	36.3	30.7	33.5
67.5°	36.3	25.1	22.3	25.1	22.3	22.3	22.3	27.9	25.1	19.5	25.1
70°	16.8	19.5	19.5	13.9	22.3	11.1	19.5	11.1	16.8	13.9	16.8
72.5°	16.8	16.8	16.8	11.1	16.8	11.1	13.9	13.9	11.1	11.1	16.8
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°	5.6	5.6	2.8	2.8	2.8	2.8	5.6	5.6	5.6	0.0	2.8
80°	5.6	5.6	0.0	2.8	0.0	0.0	2.8	0.0	2.8	0.0	5.6
82.5°	2.8	5.6	2.8	2.8	5.6	5.6	5.6	2.8	2.8	2.8	2.8
85°	0.0	2.8	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	2.8
87.5°	0.0	2.8	0.0	0.0	0.0	0.0	2.8	2.8	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: P249729

CATALOG NUMBER: LD8B90D010 ER8B90850 8LBSW0LI

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	5968.6	5968.6	5968.6	5968.6
2.5°	6127.6	6130.4	6136.0	6133.2
5°	6451.1	6473.5	6484.6	6481.9
7.5°	6755.1	6794.3	6816.5	6816.5
10°	6989.4	7034.1	7067.5	7073.1
12.5°	7114.9	7165.2	7209.8	7198.6
15°	7151.2	7201.4	7246.0	7237.6
17.5°	7109.4	7159.5	7193.1	7187.4
20°	6995.0	7036.8	7070.3	7067.5
22.5°	6816.5	6852.8	6880.7	6877.8
25°	6515.3	6540.4	6562.7	6551.6
27.5°	6052.3	6060.7	6074.6	6057.9
30°	5435.9	5441.4	5447.1	5444.3
32.5°	4744.3	4741.4	4735.9	4730.2
35°	4044.2	4044.2	4047.0	4030.2
37.5°	3408.2	3405.4	3413.8	3405.4
40°	2800.2	2797.5	2808.6	2794.7
42.5°	2183.9	2192.2	2195.0	2195.0
45°	1642.8	1645.6	1648.3	1648.3
47.5°	1199.3	1202.1	1216.1	1199.3
50°	847.9	850.7	853.4	847.9
52.5°	560.6	563.4	560.6	552.2
55°	343.0	345.9	345.9	345.9
57.5°	184.0	186.9	186.9	184.0
60°	100.5	97.6	100.5	94.8
62.5°	53.0	58.5	55.8	50.2
65°	33.5	33.5	33.5	39.0
67.5°	27.9	22.3	25.1	19.5
70°	16.8	19.5	19.5	13.9
72.5°	13.9	13.9	13.9	16.8
75°	0.0	0.0	0.0	0.0
77.5°	5.6	5.6	5.6	2.8
80°	2.8	0.0	2.8	0.0
82.5°	2.8	2.8	5.6	2.8
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)