

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: P250226

Luminaire Tested: **LSR8B90D010 EC8B90840 8LBSW0WH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P250226
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 8LBSW0WH
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 4000 CCT WITH WHEAT TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9547.0 lumens
Efficiency: N/A
Efficacy: 110.9 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

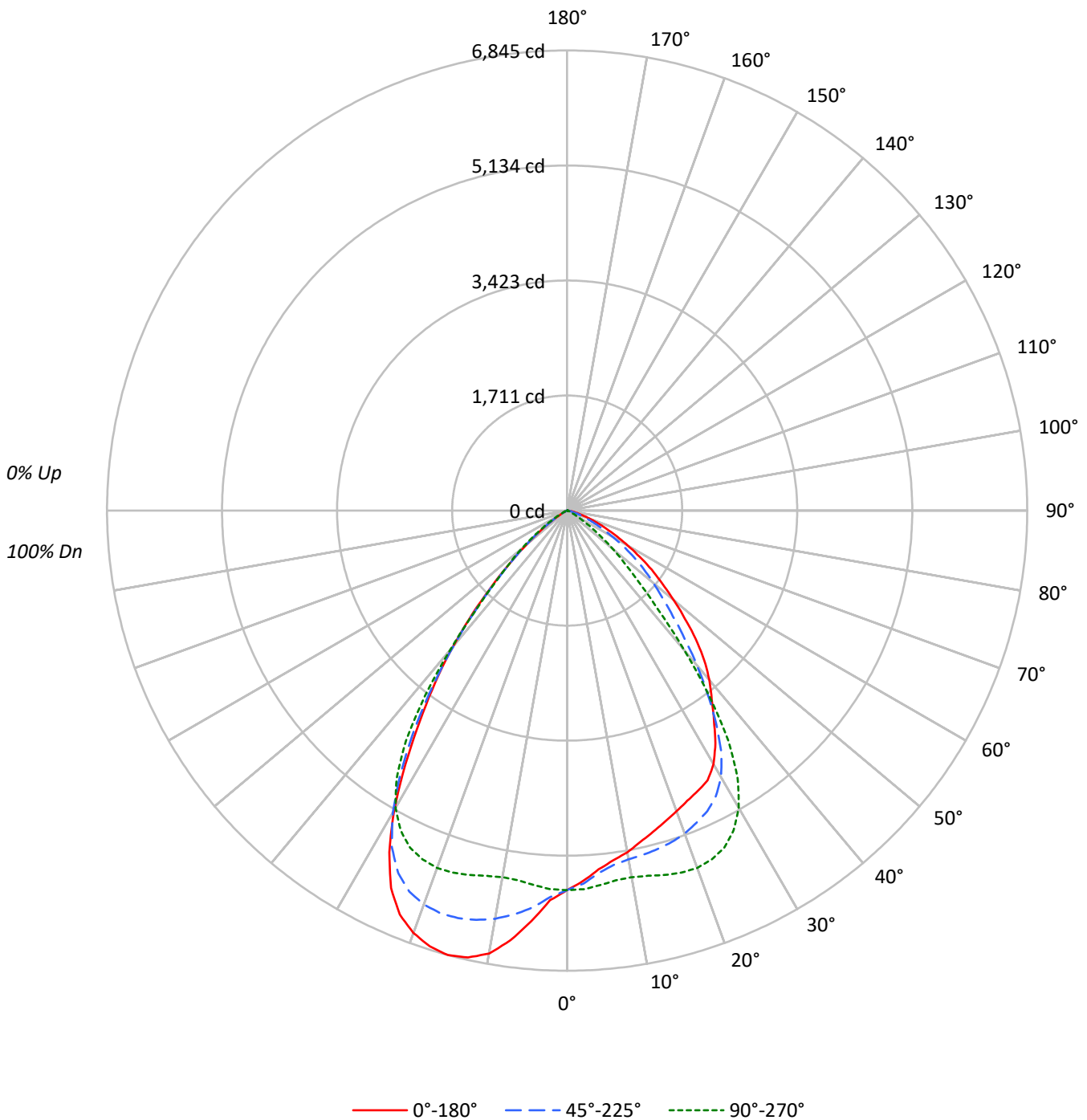
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	174077	174077	174077
5°	165840	173108	189767
10°	161564	173375	209471
15°	157900	179123	218533
20°	156162	185594	219354
25°	156528	188215	210830
30°	155074	181751	183350
35°	143296	157296	143492
40°	132415	109056	106403
45°	117910	65802	67987
50°	99213	42394	38474
55°	82540	23257	17591
60°	64423	10083	5532
65°	47544	5005	2692
70°	33061	3092	1181
75°	20111	631	0
80°	14526	941	0
85°	9341	920	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	542.7	5.7
10°-20°	1624.2	17.0
20°-30°	2487.3	26.1
30°-40°	2438.4	25.5
40°-50°	1468.4	15.4
50°-60°	675.9	7.1
60°-70°	237.4	2.5
70°-80°	62.1	0.7
80°-90°	10.6	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°	4654.2	48.8
0°-40°	7092.6	74.3
0°-60°	9236.9	96.8
0°-90°	9547.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9547.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5645	5645	5645	5645	5645	
5°	5358	5408	5592	5928	6131	506
15°	4946	5213	5611	6276	6845	1397
25°	4600	4933	5532	5948	6196	2119
35°	3807	3859	4178	3938	3812	2384
45°	2704	2226	1509	1520	1559	2073
55°	1535	1216	433	340	327	1370
65°	652	451	69	34	37	664
75°	169	98	5	0	0	205
85°	26	13	3	0	0	36
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°	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2
2.5°	5513.2	5518.6	5518.6	5518.6	5529.1	5531.8	5529.1	5531.8	5537.0	5555.5	5563.4
5°	5357.6	5349.7	5355.0	5352.3	5365.6	5373.5	5368.2	5376.1	5394.6	5407.8	5420.9
7.5°	5246.9	5246.9	5246.9	5252.1	5260.0	5275.9	5273.3	5278.5	5296.9	5315.4	5333.9
10°	5159.8	5157.2	5157.2	5170.3	5180.9	5199.3	5204.7	5220.5	5244.2	5268.0	5289.0
12.5°	5046.3	5049.1	5062.2	5075.4	5099.1	5128.1	5144.0	5165.1	5202.0	5241.6	5265.3
15°	4946.1	4948.7	4959.4	4985.6	5014.7	5049.1	5083.3	5117.6	5162.4	5212.6	5254.8
17.5°	4848.5	4851.1	4859.0	4888.1	4925.1	4969.9	5009.4	5054.3	5112.4	5170.3	5223.1
20°	4758.8	4756.2	4769.4	4795.7	4843.3	4885.4	4925.1	4977.8	5041.1	5112.4	5172.9
22.5°	4671.7	4671.7	4685.0	4711.4	4753.6	4795.7	4838.0	4893.4	4956.7	5025.3	5096.5
25°	4600.5	4597.9	4616.4	4629.6	4661.2	4703.5	4748.3	4793.1	4856.4	4933.0	5001.5
27.5°	4524.1	4521.5	4524.1	4539.9	4568.9	4600.5	4634.8	4674.5	4727.2	4790.5	4856.4
30°	4355.2	4357.8	4357.8	4371.1	4386.9	4421.1	4439.6	4479.2	4526.7	4579.5	4637.5
32.5°	4104.6	4107.2	4107.2	4112.6	4125.7	4141.6	4157.4	4186.4	4223.3	4268.2	4320.9
35°	3806.6	3806.6	3803.9	3806.6	3814.5	3814.5	3827.6	3814.5	3833.0	3859.4	3898.9
37.5°	3532.2	3526.9	3521.7	3516.3	3508.4	3495.3	3476.8	3445.1	3437.2	3426.7	3429.3
40°	3289.5	3286.9	3271.1	3257.8	3231.4	3199.8	3155.0	3099.6	3054.8	3002.0	2957.2
42.5°	3020.5	3017.8	3004.6	2980.8	2951.8	2904.4	2833.2	2759.3	2669.6	2590.5	2508.7
45°	2703.8	2711.8	2693.3	2666.9	2632.6	2587.8	2508.7	2418.9	2329.2	2226.4	2123.5
47.5°	2374.1	2371.5	2358.3	2342.5	2313.5	2268.7	2215.9	2118.3	2023.3	1928.4	1822.8
50°	2068.1	2057.6	2052.3	2036.5	2018.1	1981.1	1925.7	1846.5	1762.1	1672.5	1574.8
52.5°	1778.0	1778.0	1764.7	1754.2	1738.4	1709.4	1661.9	1598.6	1527.4	1442.9	1340.1
55°	1535.3	1530.0	1516.9	1503.6	1487.8	1469.3	1427.2	1374.4	1297.9	1216.1	1126.4
57.5°	1276.8	1274.1	1268.9	1253.0	1245.1	1226.6	1179.2	1126.4	1060.5	989.3	915.3
60°	1044.6	1034.1	1023.5	1012.9	999.8	981.3	949.6	904.8	849.4	786.1	712.3
62.5°	836.3	852.0	820.4	820.4	794.0	778.2	749.2	722.8	664.7	606.7	543.4
65°	651.6	651.6	638.3	627.8	612.0	593.5	564.5	538.1	495.9	451.0	406.2
67.5°	498.6	495.9	482.7	472.2	459.0	448.4	427.4	395.7	364.1	327.2	290.1
70°	366.7	364.1	361.4	342.9	332.4	319.2	303.4	282.3	258.5	232.1	197.8
72.5°	263.7	263.7	255.9	248.0	237.5	226.8	211.1	197.8	176.8	158.3	134.5
75°	168.8	166.2	166.2	153.0	153.0	137.1	126.6	118.7	108.1	97.6	76.5
77.5°	121.4	118.7	116.1	110.8	105.5	100.2	92.3	81.8	73.8	63.3	55.4
80°	81.8	76.5	73.8	73.8	65.9	63.3	65.9	50.2	47.4	39.5	34.3
82.5°	50.2	50.2	47.4	47.4	44.8	42.2	34.3	34.3	31.7	29.0	23.8
85°	26.4	34.3	23.8	26.4	23.8	26.4	23.8	18.5	15.9	13.1	13.1
87.5°	15.9	10.5	10.5	15.9	13.1	10.5	10.5	10.5	7.9	5.3	5.3
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°	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2
2.5°	5558.2	5576.6	5573.9	5597.7	5605.6	5624.1	5624.1	5637.2	5645.2	5663.6	5679.5
5°	5426.3	5455.3	5463.2	5492.2	5516.0	5544.9	5563.4	5592.4	5618.8	5658.4	5695.3
7.5°	5344.5	5368.2	5384.0	5418.3	5444.7	5476.3	5508.0	5547.5	5584.5	5632.0	5684.8
10°	5304.9	5336.6	5360.2	5394.6	5426.3	5460.6	5492.2	5537.0	5579.3	5639.9	5697.9
12.5°	5294.3	5331.3	5360.2	5407.8	5439.4	5476.3	5513.2	5563.4	5608.2	5671.5	5737.6
15°	5294.3	5344.5	5384.0	5436.8	5473.7	5521.2	5560.8	5610.9	5661.0	5726.9	5790.2
17.5°	5283.8	5344.5	5394.6	5455.3	5502.7	5550.3	5600.3	5647.9	5700.5	5763.9	5835.1
20°	5241.6	5318.1	5378.7	5449.9	5500.1	5552.9	5603.0	5655.7	5711.2	5777.1	5837.8
22.5°	5167.7	5257.4	5326.0	5402.5	5460.6	5513.2	5563.4	5616.2	5676.9	5740.2	5803.5
25°	5070.1	5154.5	5228.4	5307.5	5365.6	5423.6	5471.1	5531.8	5587.2	5647.9	5697.9
27.5°	4922.3	5012.0	5083.3	5165.1	5217.8	5273.3	5312.8	5363.0	5415.7	5465.8	5505.4
30°	4700.8	4782.6	4856.4	4930.3	4983.0	5022.7	5064.8	5104.4	5138.7	5172.9	5207.3
32.5°	4376.3	4450.2	4521.5	4590.0	4632.2	4666.5	4698.1	4721.9	4740.4	4758.8	4761.4
35°	3930.6	3991.2	4036.0	4096.7	4136.3	4167.9	4167.9	4178.5	4175.9	4167.9	4160.0
37.5°	3432.0	3455.7	3474.1	3497.9	3500.5	3500.5	3484.8	3471.5	3450.4	3445.1	3429.3
40°	2912.3	2880.6	2856.8	2825.2	2806.8	2767.2	2732.9	2709.2	2674.9	2669.6	2664.3
42.5°	2418.9	2345.1	2279.2	2223.8	2160.5	2105.0	2055.0	2018.1	1991.7	1989.0	1991.7
45°	2018.1	1933.6	1836.0	1759.5	1688.3	1619.7	1553.8	1508.9	1485.2	1479.8	1485.2
47.5°	1714.7	1617.1	1522.1	1435.0	1358.5	1282.0	1216.1	1155.4	1126.4	1118.5	1115.9
50°	1474.6	1374.4	1274.1	1184.4	1100.0	1023.5	941.7	883.7	846.8	833.6	823.0
52.5°	1239.9	1150.2	1047.3	955.0	870.5	780.8	696.4	630.4	593.5	577.8	567.1
55°	1034.1	944.4	849.4	759.7	670.0	580.4	495.9	432.6	393.1	374.6	361.4
57.5°	825.6	741.3	659.5	569.8	495.9	408.9	324.4	269.1	234.7	213.7	203.2
60°	638.3	572.4	501.2	427.4	356.1	284.9	216.3	163.5	137.1	121.4	108.1
62.5°	482.7	427.4	379.8	316.5	261.1	200.4	147.8	105.5	81.8	68.6	63.3
65°	348.2	306.0	263.7	224.2	184.7	139.9	100.2	68.6	47.4	39.5	36.9
67.5°	248.0	213.7	182.0	155.6	126.6	100.2	71.2	47.4	36.9	31.7	29.0
70°	174.1	147.8	126.6	102.9	84.4	65.9	55.4	34.3	21.1	23.8	18.5
72.5°	116.1	97.6	87.1	71.2	58.0	47.4	34.3	23.8	23.8	18.5	15.9
75°	63.3	58.0	44.8	34.3	29.0	26.4	10.5	5.3	2.6	7.9	2.6
77.5°	44.8	39.5	34.3	29.0	23.8	18.5	10.5	10.5	7.9	10.5	5.3
80°	29.0	23.8	21.1	21.1	13.1	7.9	5.3	5.3	7.9	2.6	2.6
82.5°	18.5	15.9	13.1	13.1	13.1	7.9	7.9	7.9	7.9	5.3	5.3
85°	10.5	7.9	5.3	5.3	2.6	5.3	0.0	2.6	2.6	0.0	0.0
87.5°	5.3	2.6	2.6	2.6	2.6	0.0	0.0	2.6	0.0	2.6	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°	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2	5645.2
2.5°	5690.0	5700.5	5713.8	5724.3	5748.1	5753.3	5763.9	5774.5	5782.4	5790.2	5792.9
5°	5726.9	5766.6	5803.5	5843.0	5893.2	5927.5	5967.0	6001.3	6035.6	6064.6	6085.7
7.5°	5737.6	5798.1	5853.6	5922.1	5996.0	6059.4	6125.3	6191.2	6259.8	6312.6	6357.4
10°	5758.6	5832.5	5903.7	5985.4	6080.5	6164.8	6246.6	6333.7	6420.7	6494.6	6560.6
12.5°	5795.5	5877.3	5953.9	6043.5	6141.2	6236.1	6325.7	6423.4	6515.8	6597.5	6671.3
15°	5856.2	5932.7	6006.6	6091.0	6188.6	6275.7	6365.4	6460.3	6552.7	6637.0	6705.7
17.5°	5895.8	5967.0	6040.8	6117.4	6199.1	6278.3	6362.7	6447.1	6531.5	6608.0	6671.3
20°	5895.8	5964.4	6019.8	6088.4	6164.8	6233.4	6302.1	6375.9	6449.7	6513.0	6573.7
22.5°	5848.3	5914.2	5956.5	6009.2	6075.1	6133.2	6170.1	6251.9	6307.3	6362.7	6407.5
25°	5737.6	5785.0	5819.3	5856.2	5909.0	5948.5	5980.2	6027.7	6083.1	6104.2	6135.8
27.5°	5537.0	5571.3	5589.8	5597.7	5624.1	5645.2	5650.5	5671.5	5695.3	5700.5	5713.8
30°	5220.5	5223.1	5215.2	5212.6	5199.3	5183.6	5180.9	5178.3	5167.7	5157.2	5159.8
32.5°	4743.0	4729.8	4698.1	4663.9	4629.6	4592.7	4571.5	4545.1	4529.3	4513.5	4495.1
35°	4125.7	4094.1	4049.3	4007.0	3967.5	3938.4	3890.9	3875.1	3859.4	3838.2	3833.0
37.5°	3400.3	3381.8	3339.6	3308.0	3286.9	3273.7	3249.9	3234.2	3234.2	3226.2	3220.9
40°	2651.1	2645.9	2630.0	2637.9	2627.4	2632.6	2630.0	2624.7	2637.9	2637.9	2643.3
42.5°	1989.0	1991.7	1999.6	2004.8	2020.7	2023.3	2036.5	2036.5	2044.4	2052.3	2057.6
45°	1479.8	1490.5	1490.5	1501.0	1516.9	1519.5	1524.7	1527.4	1532.6	1545.8	1551.1
47.5°	1110.6	1113.2	1113.2	1115.9	1121.1	1126.4	1123.8	1126.4	1134.3	1129.0	1134.3
50°	820.4	823.0	815.1	807.2	815.1	815.1	812.5	804.6	812.5	802.0	807.2
52.5°	559.3	556.6	548.7	551.4	546.0	543.4	543.4	538.1	538.1	538.1	527.6
55°	353.5	353.5	348.2	348.2	345.6	340.3	337.7	335.0	332.4	329.8	329.8
57.5°	197.8	200.4	192.6	189.9	192.6	189.9	184.7	184.7	184.7	176.8	182.0
60°	108.1	105.5	102.9	100.2	97.6	100.2	100.2	95.0	95.0	95.0	97.6
62.5°	58.0	58.0	55.4	55.4	52.8	52.8	58.0	50.2	52.8	50.2	52.8
65°	31.7	39.5	29.0	29.0	36.9	34.3	31.7	31.7	34.3	29.0	31.7
67.5°	34.3	23.8	21.1	23.8	21.1	21.1	21.1	26.4	23.8	18.5	23.8
70°	15.9	18.5	18.5	13.1	21.1	10.5	18.5	10.5	15.9	13.1	15.9
72.5°	15.9	15.9	15.9	10.5	15.9	10.5	13.1	13.1	10.5	10.5	15.9
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°	5.3	5.3	2.6	2.6	2.6	2.6	5.3	5.3	5.3	0.0	2.6
80°	5.3	5.3	0.0	2.6	0.0	0.0	2.6	0.0	2.6	0.0	5.3
82.5°	2.6	5.3	2.6	2.6	5.3	5.3	5.3	2.6	2.6	2.6	2.6
85°	0.0	2.6	0.0	0.0	0.0	0.0	5.3	0.0	0.0	0.0	2.6
87.5°	0.0	2.6	0.0	0.0	0.0	0.0	2.6	2.6	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: P250226

CATALOG NUMBER: LSR8B90D010 EC8B90840 8LBSW0WH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	5645.2	5645.2	5645.2	5645.2
2.5°	5795.5	5798.1	5803.5	5800.9
5°	6101.5	6122.7	6133.2	6130.6
7.5°	6389.0	6426.1	6447.1	6447.1
10°	6610.7	6652.9	6684.5	6689.8
12.5°	6729.3	6776.9	6819.1	6808.5
15°	6763.6	6811.2	6853.3	6845.4
17.5°	6724.1	6771.6	6803.3	6798.0
20°	6616.0	6655.5	6687.2	6684.5
22.5°	6447.1	6481.4	6507.8	6505.1
25°	6162.2	6186.0	6207.1	6196.5
27.5°	5724.3	5732.2	5745.4	5729.6
30°	5141.4	5146.6	5151.9	5149.3
32.5°	4487.2	4484.4	4479.2	4473.9
35°	3825.0	3825.0	3827.6	3811.8
37.5°	3223.5	3220.9	3228.8	3220.9
40°	2648.5	2645.9	2656.4	2643.3
42.5°	2065.5	2073.4	2076.0	2076.0
45°	1553.8	1556.4	1559.0	1559.0
47.5°	1134.3	1136.9	1150.2	1134.3
50°	802.0	804.6	807.2	802.0
52.5°	530.2	532.9	530.2	522.3
55°	324.4	327.2	327.2	327.2
57.5°	174.1	176.8	176.8	174.1
60°	95.0	92.3	95.0	89.7
62.5°	50.2	55.4	52.8	47.4
65°	31.7	31.7	31.7	36.9
67.5°	26.4	21.1	23.8	18.5
70°	15.9	18.5	18.5	13.1
72.5°	13.1	13.1	13.1	15.9
75°	0.0	0.0	0.0	0.0
77.5°	5.3	5.3	5.3	2.6
80°	2.6	0.0	2.6	0.0
82.5°	2.6	2.6	5.3	2.6
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)