

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: P250219

Luminaire Tested: **LSR8B90D010 EC8B90835 8LBSW0WH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P250219
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 EC8B90835 8LBSW0WH
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 3500 CCT WITH WHEAT TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9610.0 lumens
Efficiency: N/A
Efficacy: 111.6 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

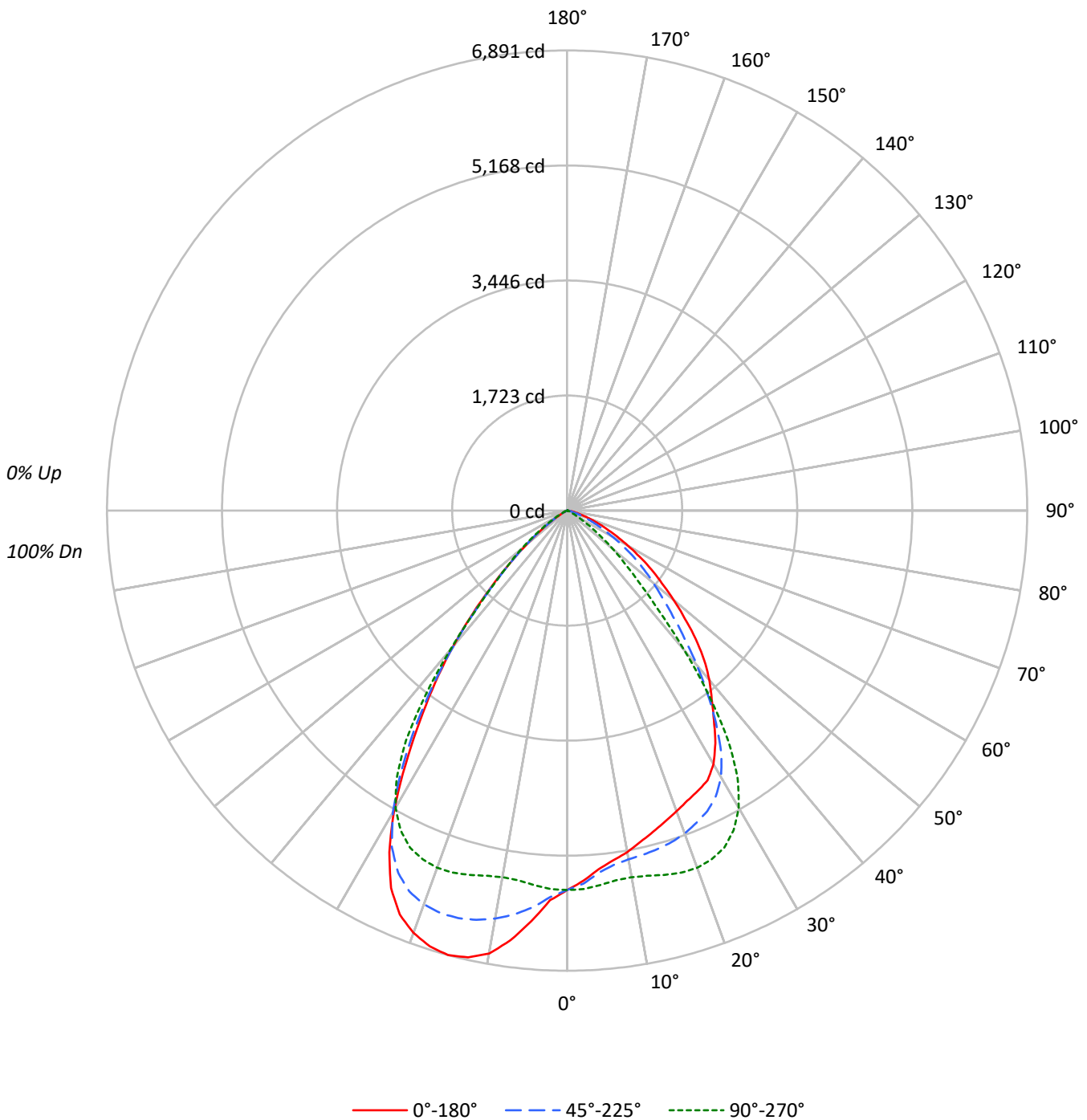
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	175224	175224	175224
5°	166935	174250	191021
10°	162631	174521	210855
15°	158944	180304	219976
20°	157192	186818	220801
25°	157562	189456	212222
30°	156100	182951	184560
35°	144241	158331	144437
40°	133289	109773	107104
45°	118691	66238	68436
50°	99870	42677	38728
55°	83083	23408	17704
60°	64849	10151	5569
65°	47858	5042	2714
70°	33278	3110	1190
75°	20254	643	0
80°	14615	959	0
85°	9411	920	0



TEST NUMBER: P250219

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	546.3	5.7
10°-20°	1634.9	17.0
20°-30°	2503.7	26.1
30°-40°	2454.5	25.5
40°-50°	1478.1	15.4
50°-60°	680.3	7.1
60°-70°	239.0	2.5
70°-80°	62.5	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°	4684.9	48.8
0°-40°	7139.4	74.3
0°-60°	9297.9	96.8
0°-90°	9610.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9610.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5682	5682	5682	5682	5682	
5°	5393	5444	5629	5967	6171	509
15°	4979	5247	5648	6317	6891	1407
25°	4631	4966	5568	5988	6237	2133
35°	3832	3885	4206	3964	3837	2400
45°	2722	2241	1519	1530	1569	2087
55°	1545	1224	435	342	329	1379
65°	656	454	69	34	37	668
75°	170	98	5	0	0	206
85°	27	13	3	0	0	37
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°	5682.4	5682.4	5682.4	5682.4	5682.4	5682.4	5682.4	5682.4	5682.4	5682.4	5682.4
2.5°	5549.6	5555.0	5555.0	5555.0	5565.6	5568.3	5565.6	5568.3	5573.6	5592.1	5600.1
5°	5393.0	5385.0	5390.4	5387.6	5401.0	5409.0	5403.6	5411.6	5430.2	5443.5	5456.7
7.5°	5281.5	5281.5	5281.5	5286.8	5294.7	5310.7	5308.1	5313.3	5331.9	5350.5	5369.1
10°	5193.9	5191.2	5191.2	5204.5	5215.1	5233.6	5239.0	5255.0	5278.8	5302.7	5323.9
12.5°	5079.6	5082.4	5095.6	5108.9	5132.8	5161.9	5177.9	5199.2	5236.4	5276.2	5300.1
15°	4978.8	4981.4	4992.1	5018.5	5047.8	5082.4	5116.8	5151.3	5196.5	5247.0	5289.5
17.5°	4880.5	4883.1	4891.1	4920.4	4957.6	5002.7	5042.5	5087.6	5146.1	5204.5	5257.6
20°	4790.2	4787.6	4800.8	4827.4	4875.3	4917.7	4957.6	5010.7	5074.4	5146.1	5207.1
22.5°	4702.6	4702.6	4715.9	4742.5	4785.0	4827.4	4869.9	4925.6	4989.4	5058.4	5130.1
25°	4630.9	4628.3	4646.8	4660.2	4692.0	4734.5	4779.6	4824.8	4888.5	4965.5	5034.5
27.5°	4553.9	4551.3	4553.9	4569.9	4599.1	4630.9	4665.4	4705.3	4758.4	4822.1	4888.5
30°	4384.0	4386.6	4386.6	4399.9	4415.9	4450.3	4468.9	4508.8	4556.6	4609.7	4668.1
32.5°	4131.7	4134.3	4134.3	4139.7	4152.9	4168.9	4184.8	4214.0	4251.2	4296.3	4349.4
35°	3831.7	3831.7	3829.0	3831.7	3839.7	3839.7	3852.9	3839.7	3858.3	3884.8	3924.6
37.5°	3555.5	3550.2	3544.9	3539.6	3531.6	3518.4	3499.8	3467.9	3459.9	3449.3	3451.9
40°	3311.2	3308.6	3292.7	3279.3	3252.8	3221.0	3175.8	3120.1	3074.9	3021.8	2976.7
42.5°	3040.4	3037.7	3024.4	3000.5	2971.3	2923.6	2851.9	2777.5	2687.3	2607.6	2525.3
45°	2721.7	2729.7	2711.1	2684.5	2650.0	2604.9	2525.3	2434.9	2344.6	2241.1	2137.5
47.5°	2389.8	2387.1	2373.9	2358.0	2328.8	2283.6	2230.5	2132.3	2036.6	1941.1	1834.9
50°	2081.8	2071.2	2065.8	2050.0	2031.4	1994.2	1938.4	1858.7	1773.8	1683.5	1585.2
52.5°	1789.7	1789.7	1776.4	1765.8	1749.8	1720.6	1672.9	1609.2	1537.5	1452.4	1348.9
55°	1545.4	1540.1	1526.9	1513.5	1497.6	1479.0	1436.6	1383.5	1306.4	1224.1	1133.8
57.5°	1285.2	1282.5	1277.2	1261.3	1253.3	1234.7	1187.0	1133.8	1067.5	995.8	921.4
60°	1051.5	1040.9	1030.2	1019.6	1006.4	987.8	955.9	910.8	855.0	791.3	717.0
62.5°	841.8	857.6	825.8	825.8	799.3	783.3	754.1	727.6	669.1	610.7	547.0
65°	655.9	655.9	642.6	632.0	616.0	597.4	568.2	541.7	499.2	454.0	408.9
67.5°	501.9	499.2	485.9	475.3	462.0	451.4	430.2	398.3	366.5	329.3	292.0
70°	369.1	366.5	363.7	345.2	334.6	321.3	305.4	284.2	260.2	233.7	199.1
72.5°	265.5	265.5	257.6	249.6	239.0	228.3	212.5	199.1	177.9	159.4	135.4
75°	170.0	167.3	167.3	154.0	154.0	138.0	127.4	119.5	108.9	98.3	77.1
77.5°	122.2	119.5	116.8	111.5	106.2	100.9	92.9	82.3	74.3	63.7	55.7
80°	82.3	77.1	74.3	74.3	66.3	63.7	66.3	50.5	47.8	39.8	34.5
82.5°	50.5	50.5	47.8	47.8	45.1	42.5	34.5	34.5	31.9	29.2	23.9
85°	26.6	34.5	23.9	26.6	23.9	26.6	23.9	18.6	16.0	13.2	13.2
87.5°	16.0	10.6	10.6	16.0	13.2	10.6	10.6	10.6	8.0	5.4	5.4
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: P250219

CATALOG NUMBER: LSR8B90D010 EC8B90835 8LBSW0WH

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	5682.4	5682.4	5682.4	5682.4	5682.4	5682.4	5682.4	5682.4	5682.4	5682.4	5682.4
2.5°	5594.9	5613.4	5610.7	5634.7	5642.6	5661.2	5661.2	5674.4	5682.4	5701.0	5717.0
5°	5462.1	5491.3	5499.2	5528.4	5552.4	5581.5	5600.1	5629.3	5655.9	5695.7	5732.9
7.5°	5379.8	5403.6	5419.6	5454.1	5480.7	5512.5	5544.4	5584.2	5621.3	5669.2	5722.3
10°	5339.9	5371.8	5395.6	5430.2	5462.1	5496.6	5528.4	5573.6	5616.1	5677.2	5735.5
12.5°	5329.3	5366.4	5395.6	5443.5	5475.3	5512.5	5549.6	5600.1	5645.3	5709.0	5775.4
15°	5329.3	5379.8	5419.6	5472.7	5509.8	5557.6	5597.5	5647.9	5698.4	5764.7	5828.4
17.5°	5318.7	5379.8	5430.2	5491.3	5539.0	5586.9	5637.3	5685.1	5738.2	5802.0	5873.6
20°	5276.2	5353.2	5414.2	5485.9	5536.4	5589.5	5640.0	5693.0	5748.9	5815.2	5876.3
22.5°	5201.8	5292.1	5361.2	5438.1	5496.6	5549.6	5600.1	5653.2	5714.3	5778.0	5841.8
25°	5103.6	5188.5	5262.9	5342.5	5401.0	5459.3	5507.2	5568.3	5624.0	5685.1	5735.5
27.5°	4954.8	5045.1	5116.8	5199.2	5252.2	5308.1	5347.9	5398.4	5451.5	5501.9	5541.7
30°	4731.9	4814.2	4888.5	4962.8	5015.9	5055.8	5098.2	5138.1	5172.7	5207.1	5241.6
32.5°	4405.2	4479.6	4551.3	4620.3	4662.8	4697.3	4729.1	4753.1	4771.6	4790.2	4792.9
35°	3956.5	4017.5	4062.6	4123.7	4163.6	4195.4	4195.4	4206.0	4203.4	4195.4	4187.5
37.5°	3454.6	3478.5	3497.0	3521.0	3523.6	3523.6	3507.7	3494.4	3473.2	3467.9	3451.9
40°	2931.5	2899.6	2875.7	2843.9	2825.3	2785.4	2751.0	2727.0	2692.5	2687.3	2681.9
42.5°	2434.9	2360.6	2294.2	2238.5	2174.8	2118.9	2068.5	2031.4	2004.8	2002.1	2004.8
45°	2031.4	1946.3	1848.1	1771.1	1699.4	1630.4	1564.0	1518.9	1495.0	1489.6	1495.0
47.5°	1726.0	1627.7	1532.1	1444.5	1367.5	1290.5	1224.1	1163.0	1133.8	1125.9	1123.2
50°	1484.4	1383.5	1282.5	1192.2	1107.3	1030.2	947.9	889.6	852.4	839.1	828.5
52.5°	1248.1	1157.8	1054.2	961.3	876.2	785.9	701.0	634.6	597.4	581.6	570.9
55°	1040.9	950.7	855.0	764.7	674.5	584.2	499.2	435.4	395.7	377.1	363.7
57.5°	831.1	746.2	663.9	573.6	499.2	411.6	326.6	270.8	236.3	215.1	204.5
60°	642.6	576.2	504.5	430.2	358.5	286.8	217.7	164.6	138.0	122.2	108.9
62.5°	485.9	430.2	382.3	318.6	262.9	201.8	148.8	106.2	82.3	69.1	63.7
65°	350.5	308.0	265.5	225.7	185.9	140.8	100.9	69.1	47.8	39.8	37.2
67.5°	249.6	215.1	183.2	156.6	127.4	100.9	71.7	47.8	37.2	31.9	29.2
70°	175.2	148.8	127.4	103.6	84.9	66.3	55.7	34.5	21.2	23.9	18.6
72.5°	116.8	98.3	87.7	71.7	58.4	47.8	34.5	23.9	23.9	18.6	16.0
75°	63.7	58.4	45.1	34.5	29.2	26.6	10.6	5.4	2.6	8.0	2.6
77.5°	45.1	39.8	34.5	29.2	23.9	18.6	10.6	10.6	8.0	10.6	5.4
80°	29.2	23.9	21.2	21.2	13.2	8.0	5.4	5.4	8.0	2.6	2.6
82.5°	18.6	16.0	13.2	13.2	13.2	8.0	8.0	8.0	8.0	5.4	5.4
85°	10.6	8.0	5.4	5.4	2.6	5.4	0.0	2.6	2.6	0.0	0.0
87.5°	5.4	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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CATALOG NUMBER: LSR8B90D010 EC8B90835 8LBSW0WH

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	5682.4	5682.4	5682.4	5682.4	5682.4	5682.4	5682.4	5682.4	5682.4	5682.4	5682.4
2.5°	5727.6	5738.2	5751.5	5762.1	5786.0	5791.3	5802.0	5812.6	5820.6	5828.4	5831.2
5°	5764.7	5804.6	5841.8	5881.6	5932.0	5966.6	6006.4	6040.9	6075.4	6104.6	6125.8
7.5°	5775.4	5836.4	5892.3	5961.2	6035.5	6099.4	6165.7	6232.1	6301.1	6354.3	6399.4
10°	5796.6	5870.9	5942.6	6024.9	6120.6	6205.5	6287.8	6375.5	6463.1	6537.4	6603.9
12.5°	5833.8	5916.1	5993.1	6083.4	6181.7	6277.2	6367.5	6465.7	6558.7	6641.0	6715.4
15°	5894.9	5971.8	6046.3	6131.2	6229.4	6317.1	6407.4	6502.9	6595.9	6680.8	6749.9
17.5°	5934.7	6006.4	6080.7	6157.7	6240.0	6319.7	6404.6	6489.7	6574.6	6651.7	6715.4
20°	5934.7	6003.7	6059.5	6128.6	6205.5	6274.6	6343.7	6418.0	6492.3	6556.0	6617.1
22.5°	5886.9	5953.2	5995.8	6048.9	6115.2	6173.7	6210.9	6293.2	6348.9	6404.6	6449.8
25°	5775.4	5823.2	5857.7	5894.9	5948.0	5987.8	6019.7	6067.5	6123.2	6144.5	6176.3
27.5°	5573.6	5608.1	5626.7	5634.7	5661.2	5682.4	5687.8	5709.0	5732.9	5738.2	5751.5
30°	5255.0	5257.6	5249.6	5247.0	5233.6	5217.8	5215.1	5212.4	5201.8	5191.2	5193.9
32.5°	4774.3	4761.0	4729.1	4694.7	4660.2	4623.0	4601.7	4575.1	4559.2	4543.3	4524.7
35°	4152.9	4121.1	4076.0	4033.5	3993.7	3964.4	3916.6	3900.7	3884.8	3863.5	3858.3
37.5°	3422.7	3404.1	3361.6	3329.8	3308.6	3295.3	3271.3	3255.5	3255.5	3247.5	3242.2
40°	2668.6	2663.3	2647.4	2655.3	2644.7	2650.0	2647.4	2642.0	2655.3	2655.3	2660.7
42.5°	2002.1	2004.8	2012.8	2018.0	2034.0	2036.6	2050.0	2050.0	2057.9	2065.8	2071.2
45°	1489.6	1500.3	1500.3	1510.9	1526.9	1529.5	1534.7	1537.5	1542.7	1556.0	1561.3
47.5°	1117.9	1120.5	1120.5	1123.2	1128.5	1133.8	1131.2	1133.8	1141.8	1136.5	1141.8
50°	825.8	828.5	820.5	812.5	820.5	820.5	817.9	809.9	817.9	807.3	812.5
52.5°	563.0	560.3	552.3	555.0	549.7	547.0	547.0	541.7	541.7	541.7	531.1
55°	355.9	355.9	350.5	350.5	347.9	342.5	339.9	337.2	334.6	331.9	331.9
57.5°	199.1	201.8	193.9	191.2	193.9	191.2	185.9	185.9	185.9	177.9	183.2
60°	108.9	106.2	103.6	100.9	98.3	100.9	100.9	95.6	95.6	95.6	98.3
62.5°	58.4	58.4	55.7	55.7	53.1	53.1	58.4	50.5	53.1	50.5	53.1
65°	31.9	39.8	29.2	29.2	37.2	34.5	31.9	31.9	34.5	29.2	31.9
67.5°	34.5	23.9	21.2	23.9	21.2	21.2	21.2	26.6	23.9	18.6	23.9
70°	16.0	18.6	18.6	13.2	21.2	10.6	18.6	10.6	16.0	13.2	16.0
72.5°	16.0	16.0	16.0	10.6	16.0	10.6	13.2	13.2	10.6	10.6	16.0
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°	5.4	5.4	2.6	2.6	2.6	2.6	5.4	5.4	5.4	0.0	2.6
80°	5.4	5.4	0.0	2.6	0.0	0.0	2.6	0.0	2.6	0.0	5.4
82.5°	2.6	5.4	2.6	2.6	5.4	5.4	5.4	2.6	2.6	2.6	2.6
85°	0.0	2.6	0.0	0.0	0.0	0.0	5.4	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: P250219

CATALOG NUMBER: LSR8B90D010 EC8B90835 8LBSW0WH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	5682.4	5682.4	5682.4	5682.4
2.5°	5833.8	5836.4	5841.8	5839.1
5°	6141.8	6163.1	6173.7	6171.1
7.5°	6431.2	6468.5	6489.7	6489.7
10°	6654.3	6696.8	6728.6	6734.0
12.5°	6773.7	6821.6	6864.1	6853.4
15°	6808.3	6856.1	6898.6	6890.6
17.5°	6768.5	6816.3	6848.2	6842.8
20°	6659.6	6699.4	6731.3	6728.6
22.5°	6489.7	6524.2	6550.8	6548.0
25°	6202.9	6226.8	6248.0	6237.4
27.5°	5762.1	5770.1	5783.3	5767.4
30°	5175.3	5180.5	5185.9	5183.3
32.5°	4516.8	4514.0	4508.8	4503.4
35°	3850.3	3850.3	3852.9	3836.9
37.5°	3244.8	3242.2	3250.1	3242.2
40°	2666.0	2663.3	2673.9	2660.7
42.5°	2079.1	2087.1	2089.7	2089.7
45°	1564.0	1566.7	1569.3	1569.3
47.5°	1141.8	1144.4	1157.8	1141.8
50°	807.3	809.9	812.5	807.3
52.5°	533.7	536.4	533.7	525.7
55°	326.6	329.3	329.3	329.3
57.5°	175.2	177.9	177.9	175.2
60°	95.6	92.9	95.6	90.3
62.5°	50.5	55.7	53.1	47.8
65°	31.9	31.9	31.9	37.2
67.5°	26.6	21.2	23.9	18.6
70°	16.0	18.6	18.6	13.2
72.5°	13.2	13.2	13.2	16.0
75°	0.0	0.0	0.0	0.0
77.5°	5.4	5.4	5.4	2.6
80°	2.6	0.0	2.6	0.0
82.5°	2.6	2.6	5.4	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)