

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: P250205

Luminaire Tested: **LSR8B90D010 EC8B90827 8LBSW0WH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P250205
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 EC8B90827 8LBSW0WH
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 2700 CCT WITH WHEAT TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9015.0 lumens
Efficiency: N/A
Efficacy: 104.7 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

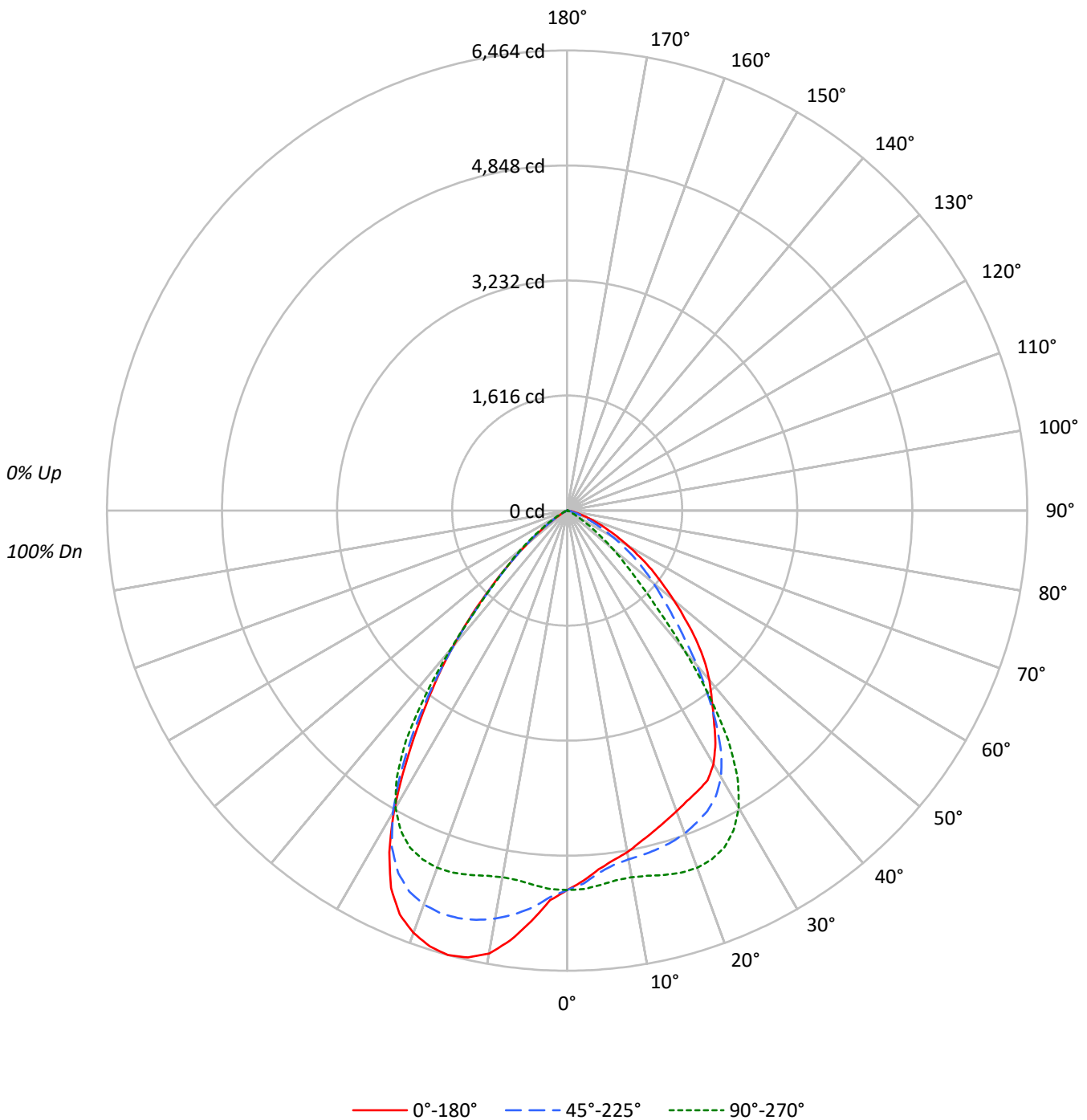
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	164376	164376	164376
5°	156600	163462	179193
10°	152562	163715	197798
15°	149102	169140	206354
20°	147459	175250	207130
25°	147808	177725	199082
30°	146433	171624	173131
35°	135312	148529	135496
40°	125037	102978	100474
45°	111343	62134	64197
50°	93686	40033	36330
55°	77943	21962	16607
60°	60834	9522	5224
65°	44895	4728	2546
70°	31213	2921	1118
75°	18991	596	0
80°	13709	888	0
85°	8810	885	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	512.5	5.7
10°-20°	1533.7	17.0
20°-30°	2348.7	26.1
30°-40°	2302.5	25.5
40°-50°	1386.6	15.4
50°-60°	638.2	7.1
60°-70°	224.2	2.5
70°-80°	58.6	0.7
80°-90°	10.0	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°	4394.9	48.8
0°-40°	6697.4	74.3
0°-60°	8722.2	96.8
0°-90°	9015.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9015.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5331	5331	5331	5331	5331	
5°	5059	5106	5281	5597	5789	478
15°	4670	4922	5298	5926	6464	1320
25°	4344	4658	5224	5617	5851	2001
35°	3594	3644	3946	3719	3599	2251
45°	2553	2102	1425	1435	1472	1958
55°	1450	1148	408	321	309	1294
65°	615	426	65	32	35	627
75°	159	92	5	0	0	193
85°	25	12	2	0	0	34
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°	5330.6	5330.6	5330.6	5330.6	5330.6	5330.6	5330.6	5330.6	5330.6	5330.6	5330.6
2.5°	5206.0	5211.0	5211.0	5211.0	5221.0	5223.5	5221.0	5223.5	5228.5	5245.9	5253.4
5°	5059.1	5051.6	5056.6	5054.1	5066.6	5074.1	5069.0	5076.5	5094.0	5106.5	5118.9
7.5°	4954.5	4954.5	4954.5	4959.4	4966.9	4981.9	4979.4	4984.3	5001.8	5019.2	5036.6
10°	4872.3	4869.8	4869.8	4882.2	4892.2	4909.6	4914.6	4929.6	4951.9	4974.4	4994.3
12.5°	4765.1	4767.7	4780.1	4792.6	4815.0	4842.3	4857.3	4877.3	4912.2	4949.5	4971.9
15°	4670.5	4673.0	4683.0	4707.8	4735.3	4767.7	4800.0	4832.4	4874.7	4922.1	4962.0
17.5°	4578.3	4580.8	4588.3	4615.8	4650.6	4693.0	4730.3	4772.6	4827.5	4882.2	4932.1
20°	4493.6	4491.2	4503.6	4528.5	4573.4	4613.2	4650.6	4700.4	4760.2	4827.5	4884.7
22.5°	4411.4	4411.4	4423.9	4448.8	4488.7	4528.5	4568.4	4620.7	4680.5	4745.3	4812.5
25°	4344.2	4341.7	4359.1	4371.6	4401.5	4441.4	4483.7	4526.0	4585.8	4658.1	4722.8
27.5°	4272.0	4269.5	4272.0	4286.9	4314.3	4344.2	4376.6	4414.0	4463.8	4523.6	4585.8
30°	4112.5	4115.0	4115.0	4127.5	4142.5	4174.8	4192.2	4229.6	4274.4	4324.3	4379.1
32.5°	3875.9	3878.4	3878.4	3883.4	3895.8	3910.8	3925.7	3953.1	3988.0	4030.3	4080.1
35°	3594.5	3594.5	3591.9	3594.5	3601.9	3601.9	3614.4	3601.9	3619.4	3644.3	3681.6
37.5°	3335.4	3330.3	3325.4	3320.4	3312.9	3300.5	3283.1	3253.1	3245.7	3235.7	3238.2
40°	3106.2	3103.8	3088.8	3076.3	3051.4	3021.5	2979.2	2926.9	2884.6	2834.7	2792.4
42.5°	2852.2	2849.6	2837.2	2814.7	2787.4	2742.5	2675.3	2605.6	2520.9	2446.1	2368.9
45°	2553.2	2560.7	2543.2	2518.3	2485.9	2443.6	2368.9	2284.1	2199.5	2102.4	2005.2
47.5°	2241.8	2239.3	2226.9	2212.0	2184.6	2142.2	2092.4	2000.2	1910.5	1820.9	1721.3
50°	1952.9	1942.9	1937.9	1923.0	1905.6	1870.7	1818.4	1743.6	1663.9	1579.3	1487.1
52.5°	1678.9	1678.9	1666.4	1656.5	1641.5	1614.1	1569.3	1509.5	1442.3	1362.5	1265.4
55°	1449.8	1444.7	1432.3	1419.8	1404.9	1387.4	1347.6	1297.8	1225.5	1148.3	1063.6
57.5°	1205.6	1203.1	1198.2	1183.2	1175.7	1158.3	1113.5	1063.6	1001.4	934.1	864.3
60°	986.4	976.5	966.4	956.5	944.1	926.7	896.7	854.4	802.1	742.3	672.6
62.5°	789.7	804.5	774.7	774.7	749.8	734.8	707.5	682.5	627.7	572.9	513.2
65°	615.3	615.3	602.8	592.8	577.9	560.4	533.0	508.1	468.3	425.9	383.6
67.5°	470.8	468.3	455.8	445.9	433.4	423.4	403.6	373.6	343.8	308.9	274.0
70°	346.2	343.8	341.2	323.8	313.8	301.4	286.5	266.6	244.1	219.2	186.8
72.5°	249.0	249.0	241.7	234.2	224.2	214.2	199.3	186.8	166.9	149.5	127.0
75°	159.4	157.0	157.0	144.5	144.5	129.5	119.5	112.1	102.1	92.2	72.3
77.5°	114.6	112.1	109.6	104.6	99.7	94.6	87.1	77.2	69.7	59.8	52.3
80°	77.2	72.3	69.7	69.7	62.2	59.8	62.2	47.4	44.8	37.3	32.4
82.5°	47.4	47.4	44.8	44.8	42.3	39.9	32.4	32.4	29.9	27.4	22.5
85°	24.9	32.4	22.5	24.9	22.5	24.9	22.5	17.4	15.0	12.4	12.4
87.5°	15.0	9.9	9.9	15.0	12.4	9.9	9.9	9.9	7.5	5.0	5.0
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	5330.6	5330.6	5330.6	5330.6	5330.6	5330.6	5330.6	5330.6	5330.6	5330.6	5330.6
2.5°	5248.5	5265.9	5263.3	5285.8	5293.3	5310.7	5310.7	5323.1	5330.6	5348.0	5363.0
5°	5123.9	5151.3	5158.7	5186.1	5208.6	5236.0	5253.4	5280.8	5305.7	5343.1	5378.0
7.5°	5046.7	5069.0	5084.0	5116.4	5141.3	5171.2	5201.1	5238.4	5273.3	5318.2	5368.0
10°	5009.3	5039.2	5061.6	5094.0	5123.9	5156.3	5186.1	5228.5	5268.4	5325.7	5380.4
12.5°	4999.3	5034.2	5061.6	5106.5	5136.3	5171.2	5206.0	5253.4	5295.7	5355.5	5417.8
15°	4999.3	5046.7	5084.0	5133.8	5168.7	5213.5	5250.9	5298.2	5345.6	5407.8	5467.6
17.5°	4989.4	5046.7	5094.0	5151.3	5196.1	5241.0	5288.2	5333.2	5382.9	5442.8	5509.9
20°	4949.5	5021.8	5079.0	5146.2	5193.6	5243.4	5290.8	5340.5	5392.9	5455.2	5512.5
22.5°	4879.8	4964.5	5029.3	5101.4	5156.3	5206.0	5253.4	5303.2	5360.5	5420.3	5480.1
25°	4787.6	4867.3	4937.1	5011.7	5066.6	5121.3	5166.2	5223.5	5275.8	5333.2	5380.4
27.5°	4648.1	4732.7	4800.0	4877.3	4927.0	4979.4	5016.7	5064.1	5113.9	5161.2	5198.6
30°	4438.9	4516.1	4585.8	4655.5	4705.4	4742.8	4782.6	4820.0	4852.4	4884.7	4917.1
32.5°	4132.4	4202.3	4269.5	4334.2	4374.1	4406.5	4436.3	4458.8	4476.2	4493.6	4496.1
35°	3711.6	3768.8	3811.1	3868.4	3905.8	3935.7	3935.7	3945.6	3943.2	3935.7	3928.2
37.5°	3240.7	3263.1	3280.5	3303.0	3305.4	3305.4	3290.6	3278.1	3258.2	3253.1	3238.2
40°	2750.0	2720.1	2697.6	2667.8	2650.4	2613.0	2580.7	2558.2	2525.8	2520.9	2515.9
42.5°	2284.1	2214.4	2152.2	2099.9	2040.1	1987.7	1940.5	1905.6	1880.7	1878.1	1880.7
45°	1905.6	1825.8	1733.7	1661.5	1594.2	1529.4	1467.2	1424.8	1402.4	1397.4	1402.4
47.5°	1619.1	1527.0	1437.3	1355.0	1282.8	1210.6	1148.3	1091.0	1063.6	1056.2	1053.7
50°	1392.4	1297.8	1203.1	1118.4	1038.7	966.4	889.2	834.5	799.6	787.1	777.2
52.5°	1170.8	1086.1	988.9	901.7	822.0	737.3	657.6	595.3	560.4	545.6	535.5
55°	976.5	891.8	802.1	717.4	632.7	548.0	468.3	408.5	371.2	353.7	341.2
57.5°	779.6	700.0	622.8	538.1	468.3	386.1	306.4	254.1	221.7	201.8	191.8
60°	602.8	540.5	473.3	403.6	336.3	269.0	204.2	154.4	129.5	114.6	102.1
62.5°	455.8	403.6	358.6	298.9	246.6	189.3	139.5	99.7	77.2	64.8	59.8
65°	328.8	288.9	249.0	211.7	174.4	132.1	94.6	64.8	44.8	37.3	34.9
67.5°	234.2	201.8	171.8	146.9	119.5	94.6	67.3	44.8	34.9	29.9	27.4
70°	164.4	139.5	119.5	97.2	79.7	62.2	52.3	32.4	19.9	22.5	17.4
72.5°	109.6	92.2	82.2	67.3	54.8	44.8	32.4	22.5	22.5	17.4	15.0
75°	59.8	54.8	42.3	32.4	27.4	24.9	9.9	5.0	2.5	7.5	2.5
77.5°	42.3	37.3	32.4	27.4	22.5	17.4	9.9	9.9	7.5	9.9	5.0
80°	27.4	22.5	19.9	19.9	12.4	7.5	5.0	5.0	7.5	2.5	2.5
82.5°	17.4	15.0	12.4	12.4	12.4	7.5	7.5	7.5	7.5	5.0	5.0
85°	9.9	7.5	5.0	5.0	2.5	5.0	0.0	2.5	2.5	0.0	0.0
87.5°	5.0	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°	5330.6	5330.6	5330.6	5330.6	5330.6	5330.6	5330.6	5330.6	5330.6	5330.6	5330.6
2.5°	5372.9	5382.9	5395.4	5405.3	5427.8	5432.7	5442.8	5452.7	5460.2	5467.6	5470.1
5°	5407.8	5445.2	5480.1	5517.4	5564.8	5597.2	5634.5	5666.9	5699.3	5726.7	5746.5
7.5°	5417.8	5475.1	5527.4	5592.1	5661.9	5721.7	5784.0	5846.2	5911.0	5960.8	6003.2
10°	5437.7	5507.5	5574.7	5651.9	5741.6	5821.3	5898.5	5980.7	6063.0	6132.7	6195.0
12.5°	5472.6	5549.8	5622.1	5706.8	5798.9	5888.6	5973.2	6065.4	6152.7	6229.9	6299.6
15°	5529.9	5602.1	5671.9	5751.6	5843.7	5926.0	6010.7	6100.3	6187.5	6267.2	6332.0
17.5°	5567.2	5634.5	5704.2	5776.5	5853.7	5928.4	6008.1	6087.9	6167.5	6239.8	6299.6
20°	5567.2	5632.0	5684.3	5749.1	5821.3	5886.1	5950.9	6020.6	6090.3	6150.1	6207.4
22.5°	5522.4	5584.7	5624.5	5674.4	5736.6	5791.5	5826.3	5903.5	5955.8	6008.1	6050.4
25°	5417.8	5462.6	5495.0	5529.9	5579.7	5617.1	5647.0	5691.8	5744.1	5764.1	5793.9
27.5°	5228.5	5260.9	5278.3	5285.8	5310.7	5330.6	5335.6	5355.5	5378.0	5382.9	5395.4
30°	4929.6	4932.1	4924.6	4922.1	4909.6	4894.7	4892.2	4889.7	4879.8	4869.8	4872.3
32.5°	4478.7	4466.3	4436.3	4404.0	4371.6	4336.8	4316.8	4291.9	4276.9	4262.0	4244.6
35°	3895.8	3866.0	3823.6	3783.7	3746.4	3718.9	3674.1	3659.2	3644.3	3624.3	3619.4
37.5°	3210.8	3193.4	3153.5	3123.7	3103.8	3091.3	3068.8	3053.9	3053.9	3046.4	3041.4
40°	2503.3	2498.4	2483.5	2490.9	2481.0	2485.9	2483.5	2478.4	2490.9	2490.9	2496.0
42.5°	1878.1	1880.7	1888.2	1893.1	1908.1	1910.5	1923.0	1923.0	1930.5	1937.9	1942.9
45°	1397.4	1407.4	1407.4	1417.4	1432.3	1434.8	1439.7	1442.3	1447.2	1459.7	1464.6
47.5°	1048.7	1051.1	1051.1	1053.7	1058.6	1063.6	1061.2	1063.6	1071.1	1066.1	1071.1
50°	774.7	777.2	769.7	762.2	769.7	769.7	767.2	759.7	767.2	757.3	762.2
52.5°	528.1	525.6	518.1	520.6	515.6	513.2	513.2	508.1	508.1	508.1	498.2
55°	333.8	333.8	328.8	328.8	326.4	321.3	318.9	316.3	313.8	311.4	311.4
57.5°	186.8	189.3	181.9	179.3	181.9	179.3	174.4	174.4	174.4	166.9	171.8
60°	102.1	99.7	97.2	94.6	92.2	94.6	94.6	89.7	89.7	89.7	92.2
62.5°	54.8	54.8	52.3	52.3	49.8	49.8	54.8	47.4	49.8	47.4	49.8
65°	29.9	37.3	27.4	27.4	34.9	32.4	29.9	29.9	32.4	27.4	29.9
67.5°	32.4	22.5	19.9	22.5	19.9	19.9	19.9	24.9	22.5	17.4	22.5
70°	15.0	17.4	17.4	12.4	19.9	9.9	17.4	9.9	15.0	12.4	15.0
72.5°	15.0	15.0	15.0	9.9	15.0	9.9	12.4	12.4	9.9	9.9	15.0
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°	5.0	5.0	2.5	2.5	2.5	2.5	5.0	5.0	5.0	0.0	2.5
80°	5.0	5.0	0.0	2.5	0.0	0.0	2.5	0.0	2.5	0.0	5.0
82.5°	2.5	5.0	2.5	2.5	5.0	5.0	5.0	2.5	2.5	2.5	2.5
85°	0.0	2.5	0.0	0.0	0.0	0.0	5.0	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: P250205

CATALOG NUMBER: LSR8B90D010 EC8B90827 8LBSW0WH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	5330.6	5330.6	5330.6	5330.6
2.5°	5472.6	5475.1	5480.1	5477.6
5°	5761.5	5781.5	5791.5	5789.0
7.5°	6033.0	6068.0	6087.9	6087.9
10°	6242.3	6282.2	6312.0	6317.0
12.5°	6354.3	6399.2	6439.1	6429.1
15°	6386.7	6431.6	6471.4	6463.9
17.5°	6349.4	6394.2	6424.2	6419.1
20°	6247.3	6284.6	6314.6	6312.0
22.5°	6087.9	6120.3	6145.2	6142.6
25°	5818.8	5841.3	5861.2	5851.2
27.5°	5405.3	5412.8	5425.2	5410.4
30°	4854.9	4859.8	4864.8	4862.3
32.5°	4237.1	4234.6	4229.6	4224.6
35°	3611.9	3611.9	3614.4	3599.4
37.5°	3043.9	3041.4	3048.9	3041.4
40°	2500.9	2498.4	2508.4	2496.0
42.5°	1950.4	1957.9	1960.4	1960.4
45°	1467.2	1469.7	1472.1	1472.1
47.5°	1071.1	1073.6	1086.1	1071.1
50°	757.3	759.7	762.2	757.3
52.5°	500.6	503.2	500.6	493.2
55°	306.4	308.9	308.9	308.9
57.5°	164.4	166.9	166.9	164.4
60°	89.7	87.1	89.7	84.7
62.5°	47.4	52.3	49.8	44.8
65°	29.9	29.9	29.9	34.9
67.5°	24.9	19.9	22.5	17.4
70°	15.0	17.4	17.4	12.4
72.5°	12.4	12.4	12.4	15.0
75°	0.0	0.0	0.0	0.0
77.5°	5.0	5.0	5.0	2.5
80°	2.5	0.0	2.5	0.0
82.5°	2.5	2.5	5.0	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)