

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: P248464

Luminaire Tested: **LSR8B90D010 EC8B90840 8LBDW0WH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P248464
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13956)
Test Lab: INNOVATION CENTER-P1
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LSR8B90D010 EC8B90840 8LBDW0WH
Description: PORTFOLIO 8 INCH DOUBLE 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: 9571.0 lumens
Efficiency: N/A
Efficacy: 111.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.33 / 1.2
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

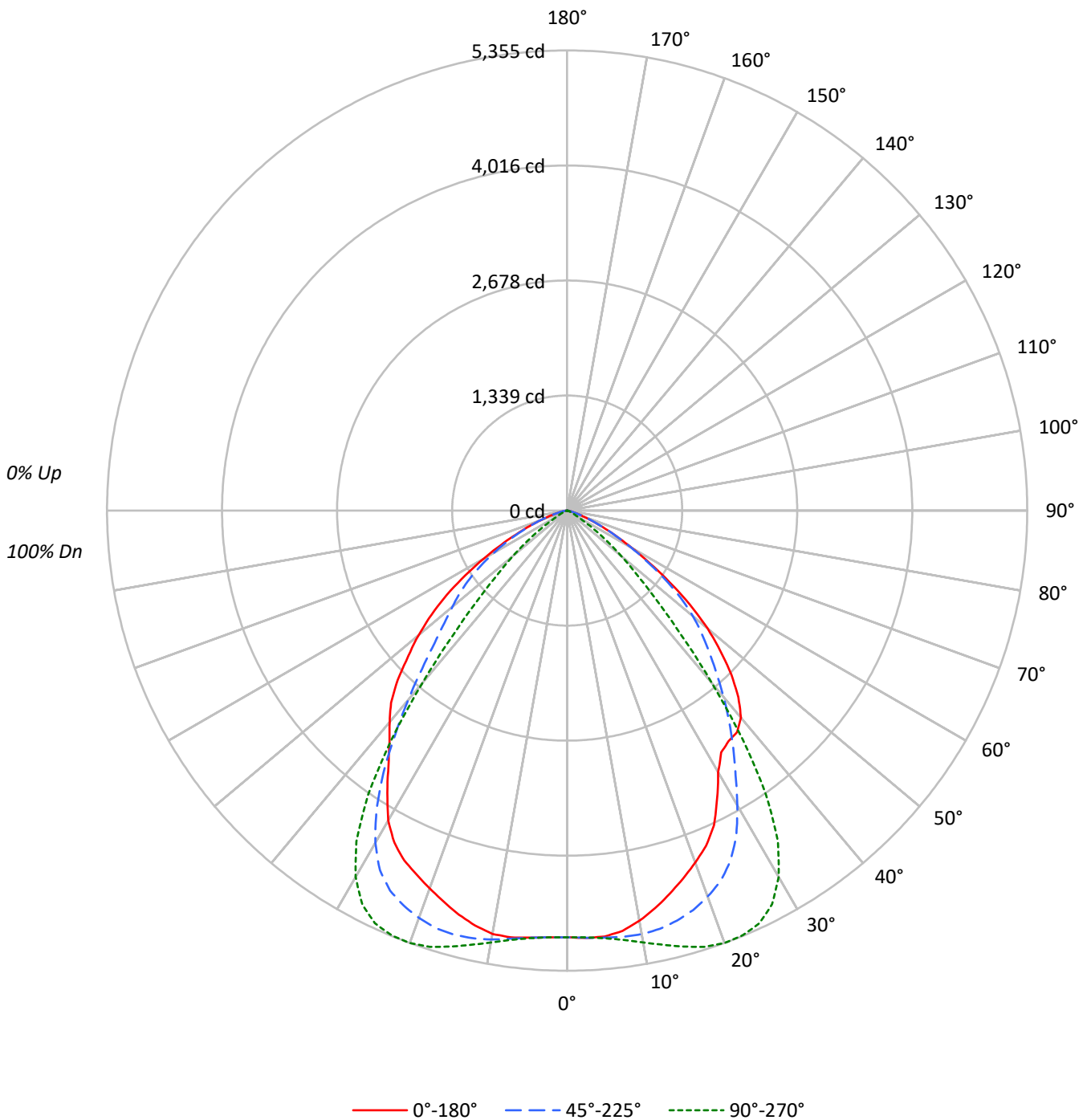
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90					90			
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79					79			
3	97	88	82	76	94	87	81	76	84	79	74	81	77	73	79	75	72	70					70			
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62					62			
5	84	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56					56			
6	78	66	59	53	76	66	58	53	64	57	53	62	57	52	61	56	52	50					50			
7	73	61	53	48	71	60	53	48	59	52	48	57	52	47	56	51	47	45					45			
8	68	56	49	44	67	56	48	43	54	48	43	53	47	43	52	47	43	41					41			
9	64	52	45	40	63	51	44	40	50	44	39	49	44	39	48	43	39	38					38			
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34					34			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	153105	153105	153105
5°	154018	154588	154424
10°	151754	159760	156623
15°	147317	167678	155394
20°	143042	175733	153507
25°	137549	180233	152795
30°	125179	175292	148263
35°	123315	151887	136411
40°	126667	105345	129316
45°	117919	63669	121595
50°	102278	39318	108351
55°	78492	20542	91954
60°	53476	8289	69400
65°	33265	4232	47880
70°	18059	2615	29230
75°	9424	1251	17276
80°	4209	1403	9358
85°	2795	920	8385



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	477.5	5.0
10°-20°	1414.5	14.8
20°-30°	2158.0	22.5
30°-40°	2251.9	23.5
40°-50°	1691.4	17.7
50°-60°	1040.7	10.9
60°-70°	423.5	4.4
70°-80°	99.8	1.0
80°-90°	13.7	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°	4049.9	42.3
0°-40°	6301.8	65.8
0°-60°	9033.9	94.4
0°-90°	9571.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9571.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4965	4965	4965	4965	4965	
5°	4976	4989	4994	4989	4989	471
15°	4615	4939	5252	5107	4868	1300
25°	4043	4496	5297	4878	4491	1838
35°	3276	3368	4035	3729	3624	2068
45°	2704	2340	1460	2180	2788	2063
55°	1460	1386	382	1386	1710	1312
65°	456	461	58	619	656	475
75°	79	79	10	140	145	95
85°	8	8	3	18	24	11
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°	4965.1	4965.1	4965.1	4965.1	4965.1	4965.1	4965.1	4965.1	4965.1	4965.1	4965.1
2.5°	4978.3	4970.4	4978.3	4978.3	4981.0	4975.7	4978.3	4981.0	4975.7	4975.7	4975.7
5°	4975.7	4970.4	4975.7	4973.0	4978.3	4978.3	4983.6	4983.6	4988.8	4988.8	4996.8
7.5°	4933.5	4923.0	4933.5	4941.4	4946.7	4957.2	4970.4	4981.0	4991.5	5002.0	5015.2
10°	4846.5	4846.5	4854.4	4870.2	4886.0	4904.5	4928.2	4954.6	4981.0	5004.6	5028.4
12.5°	4738.5	4730.6	4746.4	4767.5	4791.2	4820.2	4857.1	4896.6	4938.8	4986.2	5023.1
15°	4614.6	4606.7	4625.1	4646.2	4675.2	4717.4	4762.2	4814.9	4875.5	4938.8	4999.4
17.5°	4488.1	4485.5	4503.9	4532.9	4556.7	4601.4	4659.4	4722.6	4791.2	4875.5	4954.6
20°	4359.0	4356.4	4374.8	4398.5	4430.1	4472.3	4530.3	4604.1	4685.8	4780.7	4872.9
22.5°	4224.6	4227.2	4243.0	4269.4	4295.7	4340.5	4401.1	4475.0	4564.5	4667.3	4770.1
25°	4042.7	4029.6	4050.6	4077.0	4121.8	4158.7	4216.7	4295.7	4388.0	4496.0	4617.3
27.5°	3779.2	3776.5	3795.0	3818.7	3858.2	3903.0	3966.3	4048.0	4145.5	4264.1	4382.7
30°	3515.6	3520.9	3528.8	3552.6	3578.9	3623.7	3687.0	3755.5	3847.7	3961.0	4087.5
32.5°	3336.4	3336.4	3347.0	3362.8	3381.2	3405.0	3449.8	3499.8	3571.0	3650.1	3742.3
35°	3275.8	3265.3	3275.8	3278.4	3281.1	3286.4	3294.2	3310.1	3333.8	3368.1	3402.3
37.5°	3249.5	3241.6	3241.6	3231.0	3217.8	3202.0	3180.9	3157.2	3130.9	3096.6	3070.3
40°	3146.7	3141.4	3136.1	3125.6	3096.6	3065.0	3030.7	2975.4	2914.8	2830.4	2746.1
42.5°	2949.1	2943.8	2941.1	2920.0	2893.7	2856.8	2817.3	2759.3	2682.9	2574.8	2453.6
45°	2704.0	2693.4	2685.5	2667.1	2648.6	2617.0	2580.1	2527.3	2450.9	2340.3	2195.3
47.5°	2419.3	2414.0	2411.4	2403.5	2385.1	2366.6	2342.9	2300.7	2232.2	2126.8	1976.6
50°	2132.0	2121.5	2126.8	2124.2	2116.2	2103.1	2087.2	2058.3	2005.5	1910.7	1773.6
52.5°	1802.6	1802.6	1800.0	1807.9	1810.5	1807.9	1810.5	1778.9	1734.1	1662.9	1547.0
55°	1460.0	1460.0	1467.9	1478.5	1489.0	1491.7	1489.0	1475.9	1444.2	1386.2	1283.4
57.5°	1138.5	1133.2	1149.0	1164.8	1175.4	1185.9	1178.0	1167.5	1149.0	1101.6	1022.5
60°	867.1	867.1	877.6	888.1	898.7	909.2	906.6	903.9	888.1	856.5	793.3
62.5°	637.8	640.4	640.4	648.3	658.8	669.4	677.3	669.4	661.5	640.4	598.2
65°	455.9	453.3	455.9	463.8	471.8	482.3	487.6	484.9	477.0	461.2	429.6
67.5°	305.7	303.1	313.6	316.2	321.5	332.1	329.4	332.1	329.4	316.2	289.9
70°	200.3	195.0	200.3	197.6	205.6	208.2	213.4	216.1	213.4	205.6	197.6
72.5°	123.9	121.2	123.9	126.5	129.2	131.7	137.0	137.0	134.4	129.2	118.6
75°	79.1	71.1	73.8	68.5	73.8	73.8	79.1	81.7	79.1	79.1	73.8
77.5°	47.5	47.5	47.5	47.5	47.5	47.5	47.5	50.1	52.7	47.5	44.8
80°	23.7	23.7	26.4	26.4	26.4	29.0	26.4	26.4	26.4	29.0	21.1
82.5°	18.4	15.8	15.8	15.8	18.4	15.8	15.8	15.8	15.8	15.8	15.8
85°	7.9	10.5	7.9	5.3	7.9	7.9	10.5	7.9	7.9	7.9	10.5
87.5°	2.6	2.6	0.0	0.0	0.0	2.6	0.0	2.6	2.6	5.3	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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4965.1	4965.1	4965.1	4965.1	4965.1	4965.1	4965.1	4965.1	4965.1	4965.1	4965.1
2.5°	4978.3	4973.0	4973.0	4970.4	4975.7	4970.4	4973.0	4970.4	4970.4	4975.7	4970.4
5°	4996.8	4999.4	4994.1	4991.5	4999.4	4999.4	4999.4	4994.1	4994.1	4996.8	4994.1
7.5°	5023.1	5028.4	5031.0	5033.6	5038.9	5041.6	5041.6	5038.9	5036.3	5044.2	5033.6
10°	5052.1	5060.0	5075.8	5083.7	5096.9	5096.9	5102.2	5102.2	5096.9	5102.2	5099.5
12.5°	5041.6	5089.0	5115.3	5133.8	5152.2	5168.0	5173.3	5176.0	5173.3	5183.9	5173.3
15°	5060.0	5099.5	5141.7	5173.3	5207.6	5226.0	5231.3	5252.4	5257.7	5260.3	5244.5
17.5°	5031.0	5102.2	5146.9	5194.4	5244.5	5278.7	5310.3	5323.6	5326.2	5331.4	5310.3
20°	4965.1	5044.2	5112.7	5181.2	5239.2	5291.9	5318.3	5355.2	5344.6	5365.7	5336.7
22.5°	4875.5	4965.1	5052.1	5141.7	5202.3	5265.6	5320.9	5347.2	5360.4	5360.4	5328.8
25°	4733.2	4838.6	4933.5	5025.7	5118.0	5194.4	5257.7	5297.2	5305.1	5302.5	5265.6
27.5°	4511.8	4625.1	4735.9	4841.3	4954.6	5044.2	5118.0	5165.4	5178.6	5178.6	5139.1
30°	4206.1	4327.3	4435.4	4561.9	4677.9	4778.0	4880.8	4923.0	4946.7	4946.7	4901.9
32.5°	3842.4	3945.2	4045.4	4169.2	4295.7	4409.0	4506.5	4564.5	4593.5	4590.9	4551.4
35°	3447.1	3497.2	3573.7	3665.9	3779.2	3884.6	3979.5	4034.8	4084.9	4082.2	4045.4
37.5°	3051.8	3038.6	3046.6	3080.8	3151.9	3225.8	3299.5	3352.3	3394.4	3412.9	3405.0
40°	2664.4	2595.9	2530.0	2506.3	2511.5	2537.9	2577.4	2617.0	2664.4	2688.2	2698.7
42.5°	2316.5	2200.6	2084.6	1997.7	1947.6	1931.8	1950.2	1963.4	1992.4	2026.6	2060.9
45°	2037.2	1881.7	1728.8	1594.4	1510.1	1460.0	1449.5	1460.0	1475.9	1510.1	1554.9
47.5°	1807.9	1626.0	1454.8	1304.5	1180.6	1114.8	1096.4	1091.1	1106.9	1138.5	1199.1
50°	1605.0	1423.1	1233.4	1059.4	930.3	856.5	830.2	819.6	838.0	861.8	917.1
52.5°	1383.6	1204.4	1009.4	840.7	706.3	629.9	600.9	585.1	595.6	627.2	682.6
55°	1143.8	977.7	801.2	627.2	498.1	426.9	392.6	382.1	392.6	426.9	482.3
57.5°	903.9	764.3	616.7	453.3	337.3	266.2	231.9	221.4	250.4	263.5	321.5
60°	706.3	593.0	466.5	332.1	231.9	176.6	142.3	134.4	147.6	171.3	218.7
62.5°	529.7	458.5	358.4	237.2	171.3	113.3	94.9	87.0	94.9	113.3	150.2
65°	384.8	329.4	250.4	173.9	115.9	84.3	63.3	58.0	65.9	79.1	110.7
67.5°	263.5	221.4	173.9	121.2	79.1	52.7	44.8	44.8	47.5	58.0	81.7
70°	171.3	145.0	110.7	79.1	52.7	39.5	34.2	29.0	34.2	42.2	55.3
72.5°	108.1	92.2	71.1	55.3	39.5	29.0	23.7	21.1	26.4	31.6	42.2
75°	65.9	50.1	36.9	29.0	21.1	21.1	21.1	10.5	13.2	21.1	26.4
77.5°	39.5	34.2	29.0	23.7	18.4	10.5	10.5	10.5	13.2	15.8	23.7
80°	21.1	18.4	13.2	13.2	10.5	7.9	10.5	7.9	5.3	13.2	15.8
82.5°	13.2	10.5	10.5	10.5	13.2	5.3	7.9	5.3	7.9	10.5	7.9
85°	7.9	7.9	7.9	5.3	13.2	5.3	5.3	2.6	2.6	5.3	5.3
87.5°	0.0	2.6	2.6	0.0	2.6	0.0	2.6	2.6	2.6	2.6	2.6
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°	4965.1	4965.1	4965.1	4965.1	4965.1	4965.1	4965.1	4965.1	4965.1	4965.1	4965.1
2.5°	4973.0	4970.4	4973.0	4970.4	4970.4	4970.4	4973.0	4973.0	4970.4	4970.4	4975.7
5°	4994.1	4994.1	4994.1	4991.5	4988.8	4988.8	4994.1	4994.1	4986.2	4994.1	4994.1
7.5°	5038.9	5031.0	5038.9	5028.4	5023.1	5025.7	5028.4	5023.1	5017.8	5020.5	5020.5
10°	5096.9	5089.0	5089.0	5081.1	5073.2	5067.9	5062.7	5049.4	5036.3	5033.6	5023.1
12.5°	5165.4	5152.2	5144.4	5128.5	5115.3	5096.9	5081.1	5060.0	5033.6	5015.2	4996.8
15°	5233.9	5212.8	5194.4	5168.0	5139.1	5107.4	5073.2	5038.9	4996.8	4959.9	4928.2
17.5°	5289.3	5260.3	5226.0	5183.9	5141.7	5094.3	5044.2	4994.1	4933.5	4886.0	4849.2
20°	5307.7	5265.6	5220.8	5165.4	5110.1	5044.2	4981.0	4915.1	4846.5	4796.5	4754.3
22.5°	5284.0	5233.9	5178.6	5120.6	5046.8	4975.7	4901.9	4825.4	4764.8	4696.3	4656.8
25°	5218.1	5157.5	5096.9	5028.4	4957.2	4878.2	4799.1	4720.1	4646.2	4609.3	4559.3
27.5°	5083.7	5017.8	4951.9	4880.8	4799.1	4720.1	4638.4	4561.9	4498.7	4448.6	4419.6
30°	4846.5	4770.1	4693.7	4617.3	4546.1	4464.4	4388.0	4324.7	4261.4	4221.9	4193.0
32.5°	4482.8	4414.3	4337.9	4264.1	4198.2	4129.7	4066.4	4011.1	3966.3	3939.9	3918.8
35°	3992.7	3924.1	3866.2	3813.5	3758.1	3729.1	3689.6	3657.9	3639.5	3629.0	3626.3
37.5°	3375.9	3336.4	3318.0	3307.5	3296.9	3289.0	3294.2	3307.5	3318.0	3336.4	3357.5
40°	2717.1	2751.4	2761.9	2798.8	2833.1	2877.9	2928.0	2985.9	3033.3	3094.0	3136.1
42.5°	2116.2	2179.5	2253.3	2332.3	2416.7	2498.4	2598.5	2690.7	2775.1	2851.5	2917.4
45°	1626.0	1723.5	1834.3	1947.6	2060.9	2179.5	2300.7	2414.0	2514.2	2595.9	2664.4
47.5°	1267.6	1375.7	1518.0	1657.7	1794.7	1934.4	2068.8	2187.4	2271.7	2350.8	2411.4
50°	1004.1	1128.0	1283.4	1444.2	1594.4	1742.0	1884.3	1995.0	2079.4	2142.6	2187.4
52.5°	777.4	925.0	1083.1	1251.8	1412.6	1573.4	1705.1	1807.9	1876.4	1931.8	1966.0
55°	579.8	724.7	893.4	1067.3	1230.7	1386.2	1510.1	1599.7	1660.3	1691.9	1710.4
57.5°	419.0	550.8	719.5	893.4	1041.0	1188.6	1288.7	1370.4	1404.7	1423.1	1431.0
60°	305.7	426.9	577.1	727.4	867.1	985.6	1072.6	1128.0	1154.3	1164.8	1162.2
62.5°	224.0	329.4	458.5	585.1	698.4	795.9	864.4	901.3	914.5	919.7	911.9
65°	171.3	253.0	363.7	461.2	548.2	619.3	669.4	693.1	701.0	698.4	693.1
67.5°	126.5	189.8	271.5	345.2	408.5	463.8	490.2	511.3	516.5	508.7	500.7
70°	89.6	139.7	197.6	247.7	295.1	326.8	355.8	358.4	358.4	355.8	350.5
72.5°	63.3	97.5	134.4	168.7	197.6	221.4	231.9	239.8	237.2	234.5	229.3
75°	42.2	60.6	97.5	105.4	131.7	139.7	150.2	150.2	152.8	145.0	145.0
77.5°	26.4	42.2	58.0	68.5	79.1	89.6	94.9	94.9	97.5	94.9	94.9
80°	15.8	26.4	31.6	47.5	47.5	55.3	58.0	60.6	55.3	63.3	55.3
82.5°	10.5	15.8	23.7	23.7	29.0	34.2	34.2	36.9	36.9	34.2	34.2
85°	7.9	10.5	13.2	15.8	15.8	18.4	15.8	15.8	18.4	21.1	18.4
87.5°	2.6	5.3	2.6	5.3	5.3	10.5	7.9	7.9	7.9	10.5	10.5
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: P248464

CATALOG NUMBER: LSR8B90D010 EC8B90840 8LBDW0WH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4965.1	4965.1	4965.1	4965.1
2.5°	4970.4	4973.0	4970.4	4970.4
5°	4994.1	4991.5	4994.1	4988.8
7.5°	5012.6	5012.6	5009.9	5009.9
10°	5012.6	5002.0	5002.0	5002.0
12.5°	4973.0	4959.9	4951.9	4946.7
15°	4904.5	4880.8	4870.2	4867.6
17.5°	4814.9	4793.8	4780.7	4772.7
20°	4712.1	4691.0	4675.2	4677.9
22.5°	4622.5	4598.8	4588.3	4583.0
25°	4532.9	4503.9	4496.0	4490.8
27.5°	4388.0	4372.2	4364.2	4356.4
30°	4166.6	4158.7	4145.5	4163.9
32.5°	3911.0	3897.8	3887.2	3895.2
35°	3629.0	3621.1	3629.0	3623.7
37.5°	3370.7	3378.6	3389.2	3394.4
40°	3167.8	3196.7	3207.3	3212.5
42.5°	2964.9	2999.1	3020.2	3033.3
45°	2714.5	2748.7	2772.4	2788.3
47.5°	2456.2	2485.2	2508.9	2506.3
50°	2221.7	2237.5	2248.0	2258.6
52.5°	1984.4	1984.4	1987.1	1987.1
55°	1715.7	1710.4	1707.7	1710.4
57.5°	1420.5	1415.2	1412.6	1404.7
60°	1151.7	1135.9	1125.3	1125.3
62.5°	901.3	882.9	875.0	872.3
65°	677.3	674.6	658.8	656.2
67.5°	490.2	479.6	469.1	471.8
70°	345.2	329.4	329.4	324.2
72.5°	224.0	216.1	213.4	213.4
75°	139.7	139.7	134.4	145.0
77.5°	92.2	92.2	89.6	92.2
80°	55.3	55.3	55.3	52.7
82.5°	34.2	36.9	34.2	34.2
85°	18.4	21.1	15.8	23.7
87.5°	10.5	13.2	10.5	13.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)