

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: P249544

Luminaire Tested: **LSR8B90D010 EC8B90840 8LBDW0MW**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249544
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13957)
Test Lab: INNOVATION CENTER-P1
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LSR8B90D010 EC8B90840 8LBDW0MW
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 4000 CCT WITH MATTE WHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9390.0 lumens
Efficiency: N/A
Efficacy: 109.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.26 / 1.18
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

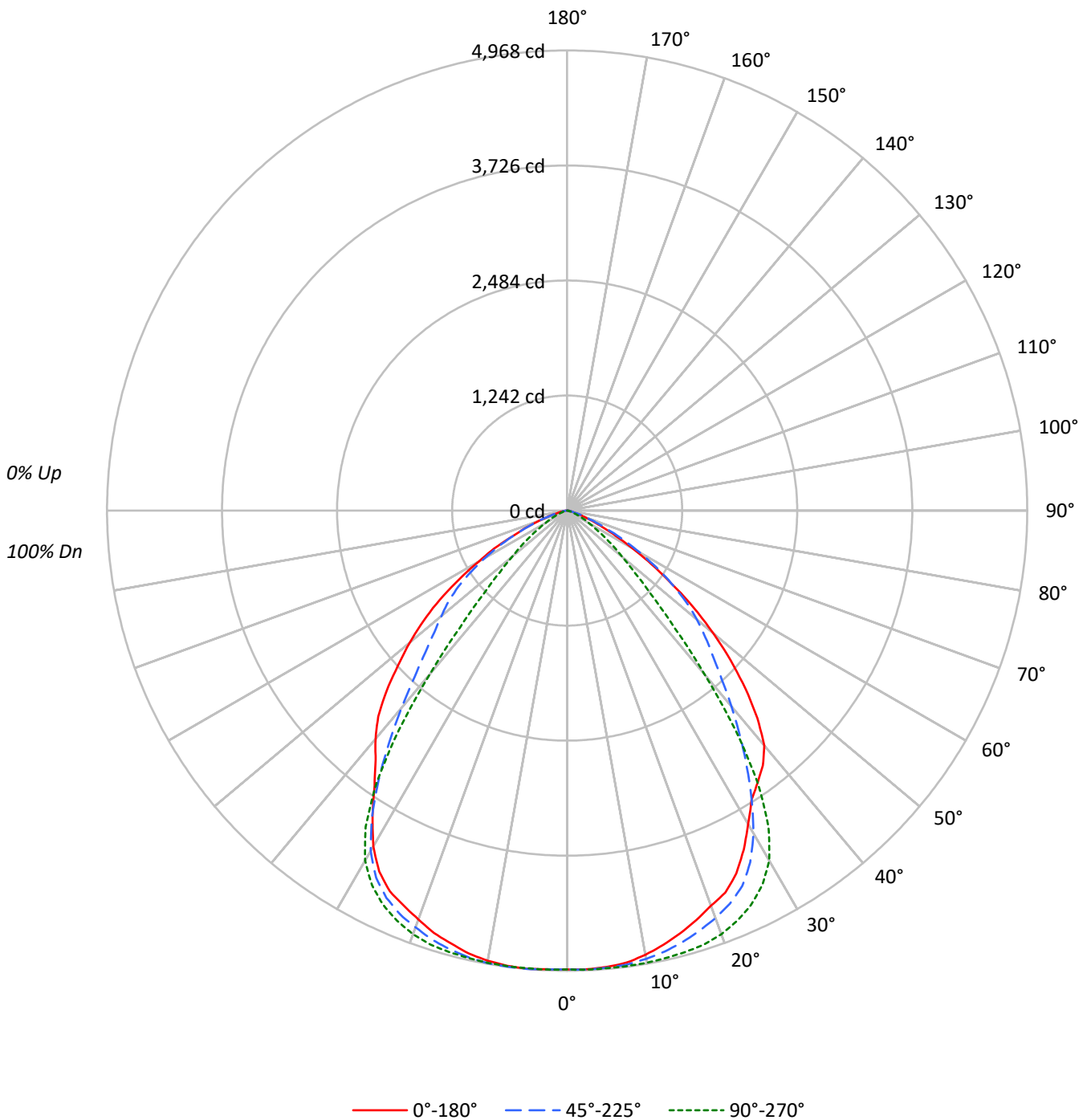
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	90					90			
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79					79			
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70					70			
4	89	80	72	67	87	78	72	66	76	70	66	74	69	65	72	67	64	62					62			
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55					55			
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	51	50					50			
7	72	61	53	48	71	60	53	48	59	52	47	57	51	47	56	51	47	45					45			
8	68	56	48	43	66	55	48	43	54	48	43	53	47	43	52	46	42	41					41			
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37					37			
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34					34			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	152772	152772	152772
5°	153108	153523	153687
10°	152464	155214	154547
15°	150778	157485	154513
20°	148965	159699	154114
25°	147032	159883	154272
30°	139101	155388	149043
35°	134947	135045	136449
40°	133277	92918	129529
45°	118756	55780	120379
50°	98747	37126	106399
55°	74056	25590	90212
60°	50189	17052	68062
65°	30273	11061	46763
70°	16788	5996	28770
75°	7601	2538	14893
80°	6606	2824	10388
85°	7536	3750	10367



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	472.8	5.0
10°-20°	1373.1	14.6
20°-30°	2084.2	22.2
30°-40°	2189.0	23.3
40°-50°	1641.2	17.5
50°-60°	1053.0	11.2
60°-70°	450.5	4.8
70°-80°	106.4	1.1
80°-90°	19.8	0.2
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°	3930.1	41.9
0°-40°	6119.1	65.2
0°-60°	8813.3	93.9
0°-90°	9390.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9390.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4954	4954	4954	4954	4954	
5°	4946	4954	4960	4968	4965	470
15°	4723	4821	4933	4901	4840	1332
25°	4321	4473	4699	4614	4534	1974
35°	3585	3385	3587	3545	3625	2250
45°	2723	2226	1279	2162	2760	2086
55°	1378	1378	476	1436	1678	1250
65°	415	489	152	630	641	443
75°	64	74	21	128	125	93
85°	21	13	11	21	29	22
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°	4954.3	4954.3	4954.3	4954.3	4954.3	4954.3	4954.3	4954.3	4954.3	4954.3	4954.3
2.5°	4957.0	4962.4	4959.7	4959.7	4957.0	4959.7	4959.7	4965.0	4965.0	4959.7	4957.0
5°	4946.3	4951.7	4951.7	4946.3	4946.3	4959.7	4951.7	4957.0	4957.0	4954.3	4954.3
7.5°	4922.5	4922.5	4933.1	4925.1	4925.1	4933.1	4930.4	4935.7	4941.1	4943.7	4943.7
10°	4869.2	4874.6	4877.2	4877.2	4879.9	4887.8	4893.2	4903.9	4909.1	4914.5	4917.1
12.5°	4802.8	4810.7	4813.4	4810.7	4818.7	4829.4	4842.7	4856.0	4864.0	4874.6	4882.6
15°	4723.0	4723.0	4728.3	4736.3	4741.6	4757.6	4770.9	4786.8	4808.1	4821.4	4834.7
17.5°	4635.2	4640.6	4648.5	4648.5	4659.2	4685.7	4693.7	4717.7	4741.6	4754.9	4781.5
20°	4539.5	4544.8	4552.8	4558.1	4571.4	4592.7	4608.6	4629.9	4656.5	4680.5	4707.0
22.5°	4465.0	4454.4	4459.7	4465.0	4478.4	4497.0	4515.6	4542.1	4568.7	4592.7	4619.3
25°	4321.4	4324.1	4332.1	4337.4	4353.4	4369.3	4390.6	4422.5	4446.4	4473.0	4502.2
27.5°	4127.3	4130.0	4143.3	4143.3	4156.5	4183.1	4196.4	4223.0	4255.0	4281.5	4316.1
30°	3906.6	3911.9	3911.9	3922.5	3930.5	3943.8	3957.1	3983.7	3999.6	4023.6	4071.5
32.5°	3704.5	3709.8	3707.1	3704.5	3696.5	3693.8	3691.1	3696.5	3701.8	3709.8	3728.4
35°	3584.8	3571.5	3560.9	3542.3	3521.0	3494.4	3470.4	3438.5	3409.3	3385.3	3358.8
37.5°	3470.4	3467.8	3451.8	3425.2	3382.7	3334.8	3279.0	3209.8	3140.7	3066.2	2994.4
40°	3310.9	3302.9	3289.6	3252.4	3204.5	3146.0	3071.6	2986.4	2874.7	2760.4	2643.4
42.5°	3039.6	3042.3	3026.3	2997.1	2951.9	2896.0	2818.9	2725.8	2606.2	2470.5	2319.0
45°	2723.2	2723.2	2717.8	2693.9	2662.0	2616.8	2558.3	2481.2	2364.2	2225.8	2063.6
47.5°	2393.4	2396.1	2388.1	2382.8	2369.5	2340.2	2297.7	2239.2	2156.7	2023.7	1861.5
50°	2058.4	2058.4	2071.6	2069.0	2069.0	2058.4	2039.7	2005.1	1933.4	1827.0	1675.4
52.5°	1723.2	1728.6	1736.6	1747.2	1760.5	1781.7	1760.5	1744.5	1699.3	1616.9	1486.6
55°	1377.5	1382.9	1396.1	1414.7	1430.8	1452.0	1457.3	1457.3	1433.4	1377.5	1279.1
57.5°	1082.4	1074.4	1085.0	1101.0	1122.3	1143.5	1159.5	1178.1	1175.4	1138.2	1058.4
60°	813.8	816.4	824.4	840.4	856.3	874.9	896.2	912.1	920.2	901.5	851.0
62.5°	593.0	593.0	603.7	619.6	627.6	654.2	667.5	675.5	683.4	680.8	648.9
65°	414.9	420.2	425.5	433.5	441.4	457.4	465.4	481.3	486.7	489.3	465.4
67.5°	292.6	284.6	289.9	295.2	303.2	313.8	329.8	329.8	337.7	337.7	321.8
70°	186.2	186.2	188.8	196.8	202.1	204.8	210.1	215.4	223.4	220.7	220.7
72.5°	125.0	122.3	125.0	127.7	130.3	138.3	138.3	140.9	146.3	148.9	138.3
75°	63.8	66.5	71.8	69.2	77.1	71.8	74.4	82.4	79.8	74.4	74.4
77.5°	53.2	53.2	53.2	50.6	55.8	55.8	53.2	58.5	55.8	55.8	53.2
80°	37.2	39.9	37.2	34.6	37.2	34.6	34.6	34.6	34.6	34.6	31.9
82.5°	29.3	23.9	26.6	23.9	26.6	26.6	23.9	21.3	21.3	23.9	21.3
85°	21.3	15.9	18.6	18.6	15.9	15.9	15.9	15.9	15.9	13.3	13.3
87.5°	13.3	8.0	8.0	8.0	10.6	10.6	10.6	8.0	10.6	10.6	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°	4954.3	4954.3	4954.3	4954.3	4954.3	4954.3	4954.3	4954.3	4954.3	4954.3	4954.3
2.5°	4962.4	4959.7	4965.0	4962.4	4962.4	4959.7	4962.4	4959.7	4965.0	4954.3	4957.0
5°	4962.4	4957.0	4959.7	4962.4	4965.0	4959.7	4959.7	4959.7	4965.0	4959.7	4962.4
7.5°	4951.7	4949.0	4957.0	4962.4	4959.7	4957.0	4962.4	4959.7	4965.0	4962.4	4967.6
10°	4930.4	4933.1	4938.4	4946.3	4949.0	4951.7	4957.0	4957.0	4965.0	4954.3	4959.7
12.5°	4898.5	4909.1	4922.5	4927.7	4938.4	4938.4	4943.7	4946.3	4951.7	4949.0	4957.0
15°	4858.6	4871.9	4887.8	4901.2	4914.5	4922.5	4930.4	4933.1	4941.1	4933.1	4935.7
17.5°	4810.7	4826.7	4850.6	4866.6	4887.8	4895.9	4906.5	4911.8	4919.8	4914.5	4917.1
20°	4744.2	4762.9	4789.5	4813.4	4826.7	4845.3	4858.6	4866.6	4871.9	4866.6	4869.2
22.5°	4651.2	4677.8	4712.4	4731.0	4757.6	4773.5	4776.2	4794.8	4808.1	4794.8	4800.1
25°	4542.1	4568.7	4595.4	4635.2	4659.2	4677.8	4696.4	4699.1	4712.4	4709.7	4707.0
27.5°	4361.3	4395.9	4441.1	4473.0	4504.9	4534.2	4555.5	4560.7	4574.1	4568.7	4571.4
30°	4114.0	4151.3	4193.8	4244.3	4289.5	4318.7	4345.4	4364.0	4377.2	4369.3	4366.6
32.5°	3763.0	3800.2	3845.4	3895.9	3949.1	3991.6	4023.6	4047.5	4063.5	4058.1	4044.9
35°	3361.4	3372.0	3401.3	3441.2	3486.4	3531.6	3560.9	3587.4	3606.0	3611.4	3611.4
37.5°	2949.2	2914.7	2893.4	2893.4	2919.9	2938.6	2965.2	2981.1	3010.4	3021.0	3029.0
40°	2550.3	2470.5	2396.1	2340.2	2303.0	2300.3	2300.3	2308.3	2334.9	2369.5	2401.4
42.5°	2194.0	2066.3	1952.0	1848.2	1773.8	1731.2	1712.6	1715.3	1736.6	1768.5	1821.6
45°	1909.4	1749.9	1606.2	1481.2	1380.2	1313.7	1281.8	1279.1	1295.1	1332.3	1390.9
47.5°	1688.7	1518.5	1356.3	1212.6	1103.6	1031.8	994.6	984.0	994.6	1029.1	1098.3
50°	1505.2	1329.7	1162.1	1013.2	896.2	821.8	787.1	773.9	787.1	816.4	885.5
52.5°	1335.0	1154.1	997.3	853.7	728.7	664.8	627.6	619.6	627.6	662.2	718.0
55°	1138.2	984.0	829.7	686.1	577.1	513.3	484.0	476.0	484.0	515.9	574.4
57.5°	944.1	811.1	675.5	545.2	452.1	396.2	369.7	359.0	377.6	398.9	468.0
60°	763.2	656.9	542.5	428.2	351.1	300.5	279.2	276.5	281.9	308.5	356.3
62.5°	598.4	510.6	420.2	327.1	263.3	242.0	215.4	212.8	218.0	234.0	271.3
65°	430.8	375.0	305.8	239.3	188.8	159.6	148.9	151.6	156.9	167.6	202.1
67.5°	300.5	260.6	212.8	167.6	130.3	117.0	106.4	103.7	106.4	125.0	143.6
70°	202.1	178.2	143.6	127.7	90.4	71.8	74.4	66.5	77.1	77.1	93.1
72.5°	132.9	117.0	95.7	74.4	63.8	50.6	50.6	47.9	53.2	55.8	69.2
75°	69.2	53.2	53.2	37.2	26.6	13.3	23.9	21.3	18.6	21.3	26.6
77.5°	47.9	39.9	37.2	29.3	26.6	21.3	21.3	21.3	21.3	23.9	26.6
80°	29.3	29.3	21.3	18.6	15.9	13.3	15.9	15.9	15.9	15.9	18.6
82.5°	18.6	15.9	15.9	13.3	13.3	10.6	10.6	10.6	10.6	10.6	15.9
85°	15.9	10.6	10.6	8.0	10.6	18.6	8.0	10.6	10.6	10.6	8.0
87.5°	5.3	8.0	8.0	8.0	5.3	2.7	5.3	8.0	8.0	13.3	10.6
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°	4954.3	4954.3	4954.3	4954.3	4954.3	4954.3	4954.3	4954.3	4954.3	4954.3	4954.3
2.5°	4962.4	4965.0	4965.0	4962.4	4962.4	4957.0	4967.6	4959.7	4962.4	4973.0	4965.0
5°	4967.6	4970.3	4970.3	4967.6	4967.6	4967.6	4970.3	4970.3	4967.6	4965.0	4970.3
7.5°	4978.3	4975.6	4975.6	4970.3	4970.3	4965.0	4970.3	4962.4	4967.6	4962.4	4970.3
10°	4965.0	4967.6	4965.0	4962.4	4962.4	4959.7	4959.7	4951.7	4954.3	4946.3	4951.7
12.5°	4957.0	4954.3	4954.3	4949.0	4943.7	4938.4	4935.7	4927.7	4927.7	4909.1	4917.1
15°	4935.7	4938.4	4930.4	4919.8	4914.5	4901.2	4895.9	4885.2	4874.6	4861.3	4864.0
17.5°	4917.1	4909.1	4898.5	4887.8	4866.6	4856.0	4845.3	4829.4	4824.0	4808.1	4802.8
20°	4861.3	4856.0	4842.7	4824.0	4810.7	4786.8	4776.2	4760.2	4746.9	4731.0	4723.0
22.5°	4789.5	4784.1	4768.2	4749.6	4728.3	4717.7	4707.0	4677.8	4664.5	4648.5	4645.9
25°	4699.1	4691.1	4675.1	4653.9	4643.2	4614.0	4603.3	4582.0	4576.7	4560.7	4558.1
27.5°	4560.7	4550.1	4531.5	4504.9	4486.3	4467.7	4457.1	4441.1	4435.8	4419.8	4417.2
30°	4353.4	4340.0	4302.8	4292.2	4260.2	4241.6	4241.6	4220.4	4223.0	4212.4	4212.4
32.5°	4026.3	4005.0	3975.7	3954.4	3933.1	3922.5	3922.5	3914.5	3919.9	3919.9	3925.2
35°	3592.8	3563.5	3547.5	3534.3	3534.3	3544.9	3576.8	3584.8	3600.8	3614.0	3624.7
37.5°	3036.9	3034.3	3052.9	3068.9	3108.8	3154.0	3209.8	3257.7	3302.9	3334.8	3366.7
40°	2436.0	2502.5	2555.6	2630.1	2691.2	2779.0	2880.1	2962.5	3039.6	3095.5	3154.0
42.5°	1901.4	1986.5	2098.2	2207.2	2316.3	2436.0	2569.0	2683.3	2784.3	2861.4	2922.6
45°	1481.2	1598.2	1733.9	1872.2	2013.1	2162.1	2300.3	2417.3	2523.7	2603.5	2664.7
47.5°	1194.0	1321.7	1475.9	1627.5	1787.1	1944.0	2098.2	2199.3	2287.0	2350.8	2406.7
50°	986.6	1122.3	1284.5	1457.3	1616.9	1773.8	1906.7	2005.1	2077.0	2132.8	2167.3
52.5°	824.4	968.0	1140.9	1313.7	1473.2	1616.9	1736.6	1811.0	1869.5	1909.4	1941.3
55°	680.8	819.1	981.3	1143.5	1300.4	1436.0	1534.4	1590.3	1635.5	1659.4	1678.0
57.5°	555.8	683.4	832.4	981.3	1116.9	1228.6	1305.8	1361.6	1382.9	1401.5	1398.8
60°	436.2	555.8	691.4	819.1	936.1	1026.5	1082.4	1114.3	1130.2	1138.2	1132.9
62.5°	343.0	452.1	555.8	667.5	752.6	829.7	882.9	882.9	890.9	893.5	901.5
65°	255.3	337.7	428.2	510.6	579.7	630.3	659.5	667.5	678.2	675.5	670.2
67.5°	188.8	250.0	316.4	377.6	425.5	457.4	478.7	497.3	494.7	489.3	486.7
70°	130.3	170.2	228.7	265.9	300.5	332.4	337.7	340.4	343.0	345.7	340.4
72.5°	90.4	119.7	151.6	183.5	204.8	218.0	231.4	234.0	234.0	234.0	231.4
75°	45.2	61.2	90.4	103.7	122.3	127.7	138.3	138.3	146.3	135.6	132.9
77.5°	39.9	47.9	63.8	74.4	82.4	90.4	93.1	101.1	98.4	93.1	95.7
80°	23.9	29.3	39.9	45.2	55.8	58.5	61.2	63.8	61.2	63.8	63.8
82.5°	18.6	21.3	26.6	26.6	34.6	34.6	37.2	37.2	39.9	39.9	39.9
85°	10.6	18.6	15.9	31.9	21.3	21.3	26.6	31.9	26.6	26.6	31.9
87.5°	10.6	10.6	8.0	10.6	10.6	10.6	13.3	15.9	15.9	18.6	15.9
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: P249544

CATALOG NUMBER: LSR8B90D010 EC8B90840 8LBDW0MW

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4954.3	4954.3	4954.3	4954.3
2.5°	4962.4	4967.6	4959.7	4957.0
5°	4970.3	4970.3	4965.0	4965.0
7.5°	4970.3	4970.3	4962.4	4957.0
10°	4949.0	4949.0	4941.1	4935.7
12.5°	4909.1	4909.1	4906.5	4898.5
15°	4858.6	4858.6	4848.0	4840.0
17.5°	4789.5	4794.8	4781.5	4781.5
20°	4715.0	4712.4	4701.7	4696.4
22.5°	4637.9	4632.6	4629.9	4614.0
25°	4555.5	4550.1	4542.1	4534.2
27.5°	4414.5	4411.9	4403.9	4393.3
30°	4199.1	4196.4	4185.8	4185.8
32.5°	3919.9	3917.2	3906.6	3909.3
35°	3630.0	3640.7	3635.3	3624.7
37.5°	3388.0	3396.0	3401.3	3396.0
40°	3185.9	3209.8	3212.5	3217.8
42.5°	2970.5	3002.4	3013.1	3018.3
45°	2712.5	2741.8	2765.7	2760.4
47.5°	2449.2	2470.5	2491.8	2475.8
50°	2196.6	2209.9	2217.9	2217.9
52.5°	1957.3	1957.3	1954.6	1957.3
55°	1683.4	1683.4	1672.7	1678.0
57.5°	1396.1	1401.5	1393.5	1380.2
60°	1130.2	1116.9	1111.6	1103.6
62.5°	880.3	880.3	861.7	885.5
65°	659.5	651.5	643.5	640.9
67.5°	478.7	476.0	468.0	465.4
70°	337.7	327.1	324.4	319.1
72.5°	226.1	226.1	220.7	220.7
75°	138.3	125.0	122.3	125.0
77.5°	95.7	93.1	93.1	90.4
80°	63.8	61.2	66.5	58.5
82.5°	39.9	42.6	39.9	42.6
85°	26.6	31.9	29.3	29.3
87.5°	15.9	15.9	15.9	15.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)