

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: P249103

Luminaire Tested: **LSR8B90D010 EC8B90835 8LBDW0H**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249103
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 EC8B90835 8LBDW0H
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 3500 CCT WITH SEMI-SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9560.0 lumens
Efficiency: N/A
Efficacy: 111.0 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

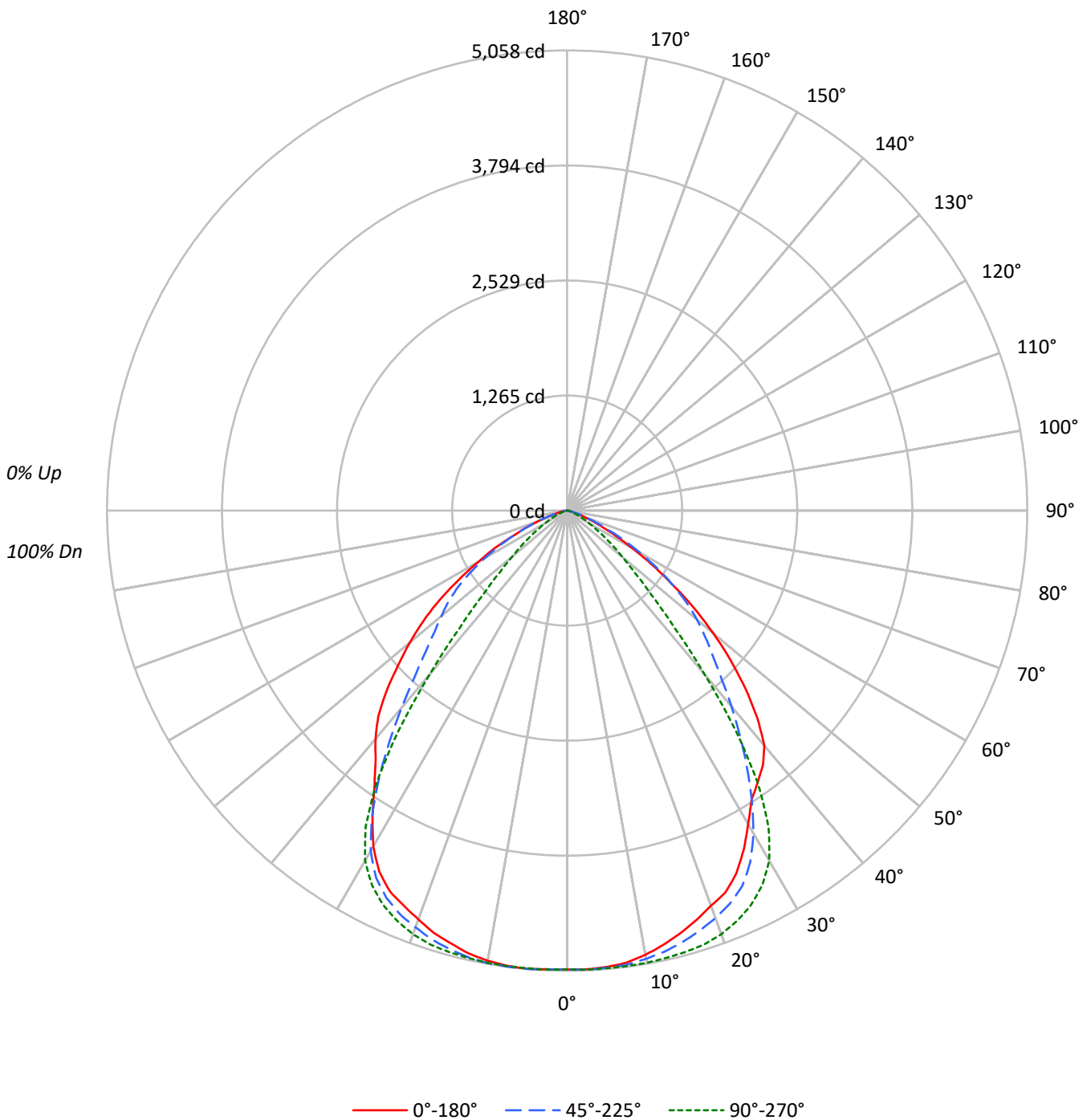
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	155538	155538	155538
5°	155882	156303	156470
10°	155226	158025	157346
15°	153507	160336	157309
20°	151663	162590	156903
25°	149696	162778	157065
30°	141619	158201	151742
35°	137390	137492	138918
40°	135688	94601	131876
45°	120906	56792	122559
50°	100532	37798	108327
55°	75400	26058	91846
60°	51096	17367	69295
65°	30820	11266	47610
70°	17085	6104	29293
75°	7744	2585	15167
80°	6730	2877	10584
85°	7678	3821	10543



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	481.4	5.0
10°-20°	1398.0	14.6
20°-30°	2121.9	22.2
30°-40°	2228.6	23.3
40°-50°	1670.9	17.5
50°-60°	1072.1	11.2
60°-70°	458.6	4.8
70°-80°	108.3	1.1
80°-90°	20.1	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°	4001.3	41.9
0°-40°	6229.9	65.2
0°-60°	8972.9	93.9
0°-90°	9560.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9560.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5044	5044	5044	5044	5044	
5°	5036	5044	5050	5058	5055	478
15°	4808	4909	5022	4990	4928	1356
25°	4400	4554	4784	4698	4616	2010
35°	3650	3447	3652	3609	3690	2291
45°	2772	2266	1302	2201	2810	2123
55°	1402	1402	485	1462	1708	1272
65°	422	498	154	642	652	451
75°	65	76	22	130	127	95
85°	22	14	11	22	30	23
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°	5044.0	5044.0	5044.0	5044.0	5044.0	5044.0	5044.0	5044.0	5044.0	5044.0	5044.0
2.5°	5046.8	5052.2	5049.5	5049.5	5046.8	5049.5	5049.5	5054.9	5054.9	5049.5	5046.8
5°	5035.9	5041.3	5041.3	5035.9	5035.9	5049.5	5041.3	5046.8	5046.8	5044.0	5044.0
7.5°	5011.6	5011.6	5022.4	5014.3	5014.3	5022.4	5019.7	5025.1	5030.5	5033.2	5033.2
10°	4957.4	4962.8	4965.5	4965.5	4968.3	4976.3	4981.8	4992.6	4998.0	5003.4	5006.1
12.5°	4889.8	4897.8	4900.6	4897.8	4906.0	4916.8	4930.4	4943.9	4952.0	4962.8	4971.0
15°	4808.5	4808.5	4813.9	4822.0	4827.5	4843.7	4857.2	4873.5	4895.1	4908.7	4922.2
17.5°	4719.2	4724.6	4732.7	4732.7	4743.5	4770.6	4778.7	4803.1	4827.5	4841.0	4868.1
20°	4621.7	4627.1	4635.2	4640.7	4654.2	4675.8	4692.1	4713.7	4740.8	4765.2	4792.2
22.5°	4545.9	4535.1	4540.4	4545.9	4559.4	4578.4	4597.3	4624.4	4651.5	4675.8	4702.9
25°	4399.7	4402.4	4410.5	4415.9	4432.2	4448.4	4470.1	4502.5	4526.9	4554.0	4583.8
27.5°	4202.0	4204.7	4218.3	4218.3	4231.8	4258.9	4272.4	4299.5	4332.0	4359.0	4394.3
30°	3977.3	3982.7	3982.7	3993.6	4001.6	4015.2	4028.7	4055.8	4072.1	4096.4	4145.2
32.5°	3771.6	3776.9	3774.2	3771.6	3763.4	3760.7	3758.0	3763.4	3768.8	3776.9	3795.9
35°	3649.7	3636.1	3625.3	3606.4	3584.7	3557.6	3533.3	3500.8	3471.0	3446.6	3419.6
37.5°	3533.3	3530.5	3514.3	3487.2	3443.9	3395.2	3338.4	3267.9	3197.5	3121.7	3048.7
40°	3370.8	3362.7	3349.2	3311.3	3262.5	3203.0	3127.2	3040.5	2926.8	2810.4	2691.3
42.5°	3094.6	3097.4	3081.1	3051.3	3005.3	2948.4	2869.9	2775.2	2653.4	2515.2	2360.9
45°	2772.5	2772.5	2767.0	2742.7	2710.2	2664.2	2604.6	2526.1	2407.0	2266.1	2101.0
47.5°	2436.7	2439.4	2431.3	2425.9	2412.3	2382.6	2339.3	2279.7	2195.8	2060.4	1895.2
50°	2095.6	2095.6	2109.1	2106.4	2106.4	2095.6	2076.7	2041.4	1968.4	1860.0	1705.7
52.5°	1754.4	1759.9	1768.0	1778.8	1792.3	1814.0	1792.3	1776.1	1730.1	1646.1	1513.5
55°	1402.5	1407.9	1421.4	1440.4	1456.7	1478.3	1483.7	1483.7	1459.3	1402.5	1302.3
57.5°	1102.0	1093.8	1104.7	1120.9	1142.6	1164.2	1180.5	1199.4	1196.7	1158.8	1077.6
60°	828.5	831.2	839.3	855.6	871.8	890.8	912.4	928.7	936.8	917.9	866.4
62.5°	603.8	603.8	614.6	630.8	639.0	666.1	679.6	687.7	695.8	693.1	660.6
65°	422.4	427.8	433.2	441.3	449.4	465.7	473.8	490.0	495.5	498.2	473.8
67.5°	297.8	289.7	295.1	300.5	308.6	319.5	335.7	335.7	343.8	343.8	327.6
70°	189.5	189.5	192.3	200.3	205.8	208.5	213.9	219.3	227.4	224.7	224.7
72.5°	127.3	124.5	127.3	130.0	132.7	140.8	140.8	143.5	148.9	151.6	140.8
75°	65.0	67.7	73.1	70.4	78.5	73.1	75.8	83.9	81.2	75.8	75.8
77.5°	54.1	54.1	54.1	51.5	56.8	56.8	54.1	59.6	56.8	56.8	54.1
80°	37.9	40.6	37.9	35.2	37.9	35.2	35.2	35.2	35.2	35.2	32.5
82.5°	29.8	24.4	27.1	24.4	27.1	27.1	24.4	21.7	21.7	24.4	21.7
85°	21.7	16.2	18.9	18.9	16.2	16.2	16.2	16.2	16.2	13.5	13.5
87.5°	13.5	8.1	8.1	8.1	10.8	10.8	10.8	8.1	10.8	10.8	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



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	5044.0	5044.0	5044.0	5044.0	5044.0	5044.0	5044.0	5044.0	5044.0	5044.0	5044.0
2.5°	5052.2	5049.5	5054.9	5052.2	5052.2	5049.5	5052.2	5049.5	5054.9	5044.0	5046.8
5°	5052.2	5046.8	5049.5	5052.2	5054.9	5049.5	5049.5	5049.5	5054.9	5049.5	5052.2
7.5°	5041.3	5038.6	5046.8	5052.2	5049.5	5046.8	5052.2	5049.5	5054.9	5052.2	5057.6
10°	5019.7	5022.4	5027.8	5035.9	5038.6	5041.3	5046.8	5046.8	5054.9	5044.0	5049.5
12.5°	4987.2	4998.0	5011.6	5016.9	5027.8	5027.8	5033.2	5035.9	5041.3	5038.6	5046.8
15°	4946.6	4960.1	4976.3	4989.9	5003.4	5011.6	5019.7	5022.4	5030.5	5022.4	5025.1
17.5°	4897.8	4914.1	4938.4	4954.7	4976.3	4984.5	4995.3	5000.7	5008.9	5003.4	5006.1
20°	4830.1	4849.1	4876.2	4900.6	4914.1	4933.0	4946.6	4954.7	4960.1	4954.7	4957.4
22.5°	4735.4	4762.5	4797.7	4816.6	4843.7	4859.9	4862.7	4881.6	4895.1	4881.6	4887.0
25°	4624.4	4651.5	4678.6	4719.2	4743.5	4762.5	4781.4	4784.2	4797.7	4795.0	4792.2
27.5°	4440.3	4475.5	4521.5	4554.0	4586.5	4616.3	4637.9	4643.3	4656.9	4651.5	4654.2
30°	4188.5	4226.4	4269.7	4321.1	4367.2	4396.9	4424.0	4443.0	4456.5	4448.4	4445.7
32.5°	3831.1	3869.0	3915.0	3966.5	4020.6	4063.9	4096.4	4120.8	4137.0	4131.6	4118.1
35°	3422.3	3433.1	3462.9	3503.5	3549.5	3595.5	3625.3	3652.4	3671.3	3676.8	3676.8
37.5°	3002.6	2967.4	2945.8	2945.8	2972.8	2991.8	3018.8	3035.1	3064.9	3075.7	3083.8
40°	2596.5	2515.2	2439.4	2382.6	2344.7	2342.0	2342.0	2350.1	2377.2	2412.3	2444.9
42.5°	2233.7	2103.7	1987.3	1881.7	1805.9	1762.6	1743.6	1746.4	1768.0	1800.5	1854.6
45°	1944.0	1781.5	1635.3	1508.1	1405.2	1337.5	1305.0	1302.3	1318.5	1356.4	1416.0
47.5°	1719.3	1546.0	1380.8	1234.6	1123.6	1050.5	1012.6	1001.8	1012.6	1047.8	1118.2
50°	1532.4	1353.8	1183.2	1031.5	912.4	836.6	801.4	787.9	801.4	831.2	901.6
52.5°	1359.1	1175.0	1015.3	869.1	741.8	676.9	639.0	630.8	639.0	674.1	731.0
55°	1158.8	1001.8	844.7	698.5	587.6	522.6	492.8	484.7	492.8	525.3	584.8
57.5°	961.2	825.8	687.7	555.0	460.3	403.4	376.4	365.5	384.4	406.1	476.5
60°	777.0	668.8	552.3	435.9	357.4	305.9	284.3	281.6	287.0	314.1	362.8
62.5°	609.2	519.8	427.8	333.0	268.0	246.4	219.3	216.6	222.0	238.2	276.2
65°	438.6	381.8	311.4	243.7	192.3	162.4	151.6	154.4	159.7	170.6	205.8
67.5°	305.9	265.3	216.6	170.6	132.7	119.1	108.3	105.6	108.3	127.3	146.2
70°	205.8	181.4	146.2	130.0	92.1	73.1	75.8	67.7	78.5	78.5	94.7
72.5°	135.3	119.1	97.5	75.8	65.0	51.5	51.5	48.8	54.1	56.8	70.4
75°	70.4	54.1	54.1	37.9	27.1	13.5	24.4	21.7	18.9	21.7	27.1
77.5°	48.8	40.6	37.9	29.8	27.1	21.7	21.7	21.7	21.7	24.4	27.1
80°	29.8	29.8	21.7	18.9	16.2	13.5	16.2	16.2	16.2	16.2	18.9
82.5°	18.9	16.2	16.2	13.5	13.5	10.8	10.8	10.8	10.8	10.8	16.2
85°	16.2	10.8	10.8	8.1	10.8	18.9	8.1	10.8	10.8	10.8	8.1
87.5°	5.4	8.1	8.1	8.1	5.4	2.7	5.4	8.1	8.1	13.5	10.8
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°	5044.0	5044.0	5044.0	5044.0	5044.0	5044.0	5044.0	5044.0	5044.0	5044.0	5044.0
2.5°	5052.2	5054.9	5054.9	5052.2	5052.2	5046.8	5057.6	5049.5	5052.2	5063.0	5054.9
5°	5057.6	5060.3	5060.3	5057.6	5057.6	5057.6	5060.3	5060.3	5057.6	5054.9	5060.3
7.5°	5068.4	5065.7	5065.7	5060.3	5060.3	5054.9	5060.3	5052.2	5057.6	5052.2	5060.3
10°	5054.9	5057.6	5054.9	5052.2	5052.2	5049.5	5049.5	5041.3	5044.0	5035.9	5041.3
12.5°	5046.8	5044.0	5044.0	5038.6	5033.2	5027.8	5025.1	5016.9	5016.9	4998.0	5006.1
15°	5025.1	5027.8	5019.7	5008.9	5003.4	4989.9	4984.5	4973.6	4962.8	4949.3	4952.0
17.5°	5006.1	4998.0	4987.2	4976.3	4954.7	4943.9	4933.0	4916.8	4911.4	4895.1	4889.8
20°	4949.3	4943.9	4930.4	4911.4	4897.8	4873.5	4862.7	4846.4	4832.8	4816.6	4808.5
22.5°	4876.2	4870.7	4854.5	4835.6	4813.9	4803.1	4792.2	4762.5	4748.9	4732.7	4730.0
25°	4784.2	4776.0	4759.8	4738.1	4727.2	4697.5	4686.6	4665.0	4659.6	4643.3	4640.7
27.5°	4643.3	4632.5	4613.6	4586.5	4567.5	4548.6	4537.8	4521.5	4516.1	4499.8	4497.2
30°	4432.2	4418.6	4380.7	4369.9	4337.4	4318.4	4318.4	4296.8	4299.5	4288.7	4288.7
32.5°	4099.2	4077.5	4047.7	4026.0	4004.4	3993.6	3993.6	3985.4	3990.8	3990.8	3996.3
35°	3657.8	3628.1	3611.8	3598.3	3598.3	3609.1	3641.6	3649.7	3666.0	3679.5	3690.3
37.5°	3091.9	3089.3	3108.2	3124.4	3165.1	3211.1	3267.9	3316.7	3362.7	3395.2	3427.7
40°	2480.1	2547.8	2601.9	2677.7	2739.9	2829.3	2932.2	3016.1	3094.6	3151.5	3211.1
42.5°	1935.8	2022.5	2136.2	2247.2	2358.2	2480.1	2615.5	2731.9	2834.7	2913.2	2975.5
45°	1508.1	1627.2	1765.3	1906.1	2049.6	2201.2	2342.0	2461.1	2569.4	2650.6	2712.9
47.5°	1215.6	1345.6	1502.6	1657.0	1819.4	1979.2	2136.2	2239.1	2328.4	2393.4	2450.3
50°	1004.5	1142.6	1307.7	1483.7	1646.1	1805.9	1941.3	2041.4	2114.6	2171.4	2206.6
52.5°	839.3	985.5	1161.5	1337.5	1499.9	1646.1	1768.0	1843.8	1903.4	1944.0	1976.4
55°	693.1	833.9	999.1	1164.2	1324.0	1462.0	1562.2	1619.1	1665.1	1689.5	1708.4
57.5°	565.9	695.8	847.4	999.1	1137.1	1250.9	1329.4	1386.2	1407.9	1426.8	1424.1
60°	444.1	565.9	703.9	833.9	953.0	1045.1	1102.0	1134.4	1150.7	1158.8	1153.4
62.5°	349.3	460.3	565.9	679.6	766.2	844.7	898.9	898.9	907.0	909.7	917.9
65°	259.9	343.8	435.9	519.8	590.2	641.7	671.5	679.6	690.4	687.7	682.3
67.5°	192.3	254.5	322.2	384.4	433.2	465.7	487.3	506.3	503.6	498.2	495.5
70°	132.7	173.3	232.9	270.8	305.9	338.5	343.8	346.5	349.3	352.0	346.5
72.5°	92.1	121.8	154.4	186.8	208.5	222.0	235.6	238.2	238.2	238.2	235.6
75°	46.0	62.3	92.1	105.6	124.5	130.0	140.8	140.8	148.9	138.1	135.3
77.5°	40.6	48.8	65.0	75.8	83.9	92.1	94.7	102.9	100.2	94.7	97.5
80°	24.4	29.8	40.6	46.0	56.8	59.6	62.3	65.0	62.3	65.0	65.0
82.5°	18.9	21.7	27.1	27.1	35.2	35.2	37.9	37.9	40.6	40.6	40.6
85°	10.8	18.9	16.2	32.5	21.7	21.7	27.1	32.5	27.1	27.1	32.5
87.5°	10.8	10.8	8.1	10.8	10.8	10.8	13.5	16.2	16.2	18.9	16.2
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: P249103

CATALOG NUMBER: LSR8B90D010 EC8B90835 8LBDW0H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	5044.0	5044.0	5044.0	5044.0
2.5°	5052.2	5057.6	5049.5	5046.8
5°	5060.3	5060.3	5054.9	5054.9
7.5°	5060.3	5060.3	5052.2	5046.8
10°	5038.6	5038.6	5030.5	5025.1
12.5°	4998.0	4998.0	4995.3	4987.2
15°	4946.6	4946.6	4935.7	4927.6
17.5°	4876.2	4881.6	4868.1	4868.1
20°	4800.4	4797.7	4786.9	4781.4
22.5°	4721.9	4716.4	4713.7	4697.5
25°	4637.9	4632.5	4624.4	4616.3
27.5°	4494.5	4491.7	4483.6	4472.8
30°	4275.1	4272.4	4261.6	4261.6
32.5°	3990.8	3988.1	3977.3	3980.0
35°	3695.7	3706.6	3701.1	3690.3
37.5°	3449.3	3457.5	3462.9	3457.5
40°	3243.6	3267.9	3270.7	3276.1
42.5°	3024.3	3056.7	3067.6	3073.0
45°	2761.6	2791.4	2815.8	2810.4
47.5°	2493.6	2515.2	2536.9	2520.7
50°	2236.4	2249.9	2258.1	2258.1
52.5°	1992.7	1992.7	1990.0	1992.7
55°	1713.8	1713.8	1703.0	1708.4
57.5°	1421.4	1426.8	1418.7	1405.2
60°	1150.7	1137.1	1131.7	1123.6
62.5°	896.2	896.2	877.3	901.6
65°	671.5	663.3	655.2	652.5
67.5°	487.3	484.7	476.5	473.8
70°	343.8	333.0	330.3	324.9
72.5°	230.1	230.1	224.7	224.7
75°	140.8	127.3	124.5	127.3
77.5°	97.5	94.7	94.7	92.1
80°	65.0	62.3	67.7	59.6
82.5°	40.6	43.3	40.6	43.3
85°	27.1	32.5	29.8	29.8
87.5°	16.2	16.2	16.2	16.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)