

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: P248401

Luminaire Tested: **LSR8B90D010 EC8B90940 8LBDW0LI**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P248401
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 EC8B90940 8LBDW0LI
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
90 CRI 4000 CCT WITH SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8824.0 lumens
Efficiency: N/A
Efficacy: 102.5 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

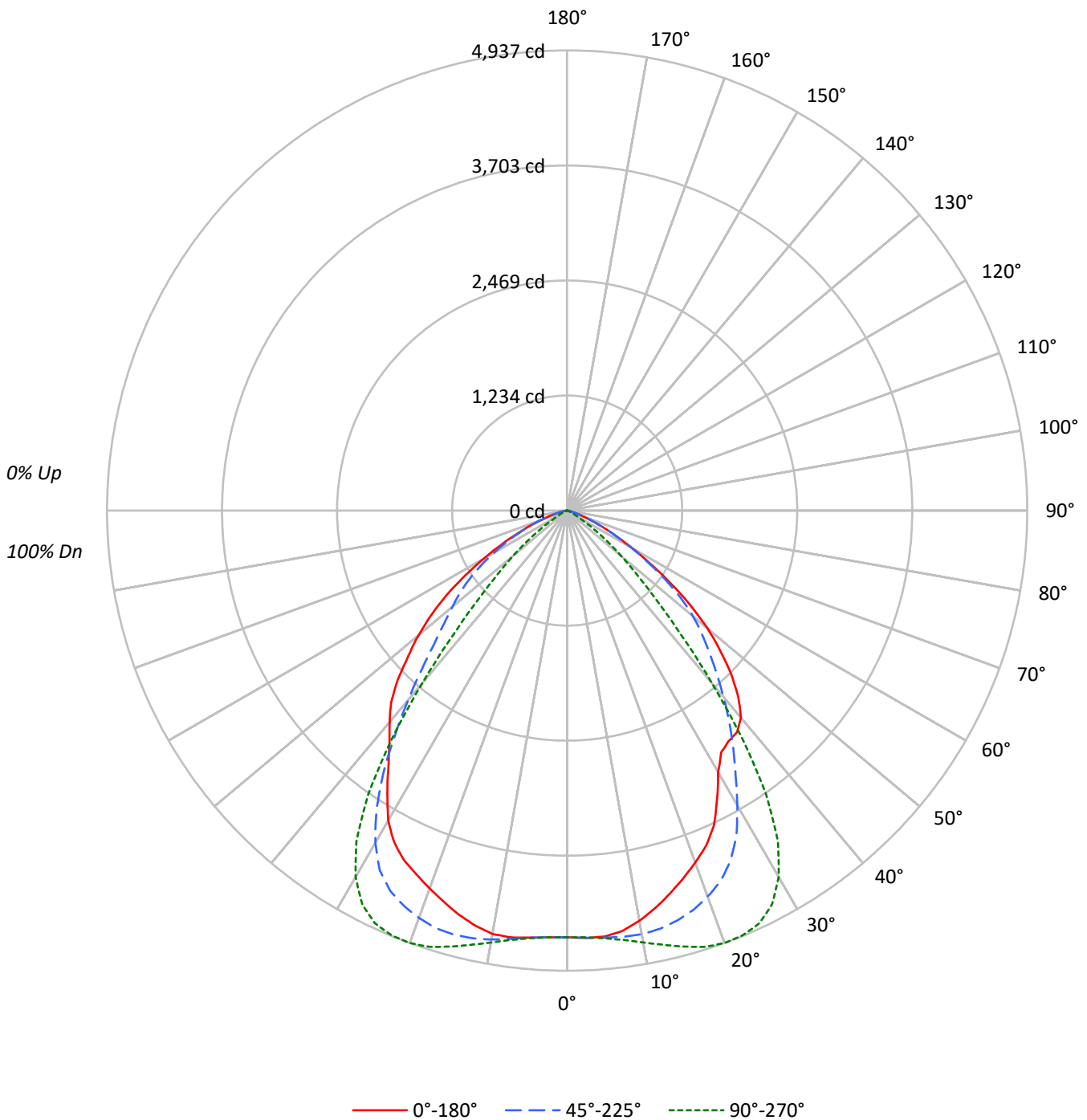
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	141156	141156	141156
5°	141996	142522	142373
10°	139908	147292	144398
15°	135821	154589	143266
20°	131878	162016	141526
25°	126815	166167	140870
30°	115408	161612	136694
35°	113689	140033	125765
40°	116781	97121	119224
45°	108713	58698	112106
50°	94295	36248	99894
55°	72363	18940	84776
60°	49301	7641	63985
65°	30667	3896	44144
70°	16652	2416	26949
75°	8685	1156	15917
80°	3889	1296	8630
85°	2583	849	7748



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	440.2	5.0
10°-20°	1304.1	14.8
20°-30°	1989.5	22.5
30°-40°	2076.1	23.5
40°-50°	1559.4	17.7
50°-60°	959.5	10.9
60°-70°	390.5	4.4
70°-80°	92.0	1.0
80°-90°	12.7	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°	3733.8	42.3
0°-40°	5810.0	65.8
0°-60°	8328.9	94.4
0°-90°	8824.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8824.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4578	4578	4578	4578	4578	
5°	4587	4600	4604	4600	4600	434
15°	4254	4553	4842	4709	4488	1198
25°	3727	4145	4884	4497	4140	1694
35°	3020	3105	3720	3438	3341	1907
45°	2493	2158	1346	2009	2571	1902
55°	1346	1278	352	1278	1577	1210
65°	420	425	53	571	605	438
75°	73	73	10	129	134	88
85°	7	7	2	17	22	10
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°	4577.6	4577.6	4577.6	4577.6	4577.6	4577.6	4577.6	4577.6	4577.6	4577.6	4577.6
2.5°	4589.8	4582.5	4589.8	4589.8	4592.2	4587.3	4589.8	4592.2	4587.3	4587.3	4587.3
5°	4587.3	4582.5	4587.3	4584.9	4589.8	4589.8	4594.6	4594.6	4599.5	4599.5	4606.8
7.5°	4548.4	4538.8	4548.4	4555.8	4560.6	4570.3	4582.5	4592.2	4601.9	4611.6	4623.8
10°	4468.2	4468.2	4475.6	4490.1	4504.7	4521.7	4543.6	4567.9	4592.2	4614.0	4635.9
12.5°	4368.7	4361.4	4375.9	4395.4	4417.2	4444.0	4478.0	4514.4	4553.3	4597.0	4631.1
15°	4254.5	4247.1	4264.2	4283.6	4310.3	4349.2	4390.5	4439.1	4495.0	4553.3	4609.2
17.5°	4137.8	4135.4	4152.4	4179.1	4201.0	4242.3	4295.8	4354.0	4417.2	4495.0	4567.9
20°	4018.8	4016.4	4033.4	4055.2	4084.4	4123.3	4176.7	4244.7	4320.0	4407.5	4492.6
22.5°	3894.8	3897.3	3911.8	3936.2	3960.5	4001.7	4057.6	4125.7	4208.3	4303.0	4397.8
25°	3727.2	3715.1	3734.5	3758.8	3800.1	3834.1	3887.6	3960.5	4045.5	4145.1	4256.9
27.5°	3484.2	3481.8	3498.8	3520.7	3557.1	3598.4	3656.7	3732.1	3822.0	3931.3	4040.6
30°	3241.2	3246.1	3253.4	3275.3	3299.6	3340.9	3399.2	3462.4	3547.4	3651.9	3768.5
32.5°	3076.0	3076.0	3085.8	3100.3	3117.3	3139.2	3180.5	3226.7	3292.3	3365.2	3450.2
35°	3020.1	3010.4	3020.1	3022.6	3025.0	3029.9	3037.1	3051.8	3073.6	3105.2	3136.8
37.5°	2995.9	2988.6	2988.6	2978.9	2966.7	2952.1	2932.7	2910.8	2886.5	2854.9	2830.7
40°	2901.1	2896.2	2891.4	2881.7	2854.9	2825.8	2794.2	2743.1	2687.3	2609.5	2531.8
42.5°	2718.9	2714.0	2711.6	2692.1	2667.8	2633.8	2597.4	2543.9	2473.5	2373.8	2262.1
45°	2492.9	2483.2	2475.9	2458.9	2441.8	2412.7	2378.7	2330.1	2259.6	2157.6	2024.0
47.5°	2230.5	2225.6	2223.2	2215.9	2198.9	2181.9	2160.0	2121.2	2058.0	1960.8	1822.3
50°	1965.6	1955.9	1960.8	1958.4	1951.1	1938.9	1924.3	1897.6	1849.0	1761.5	1635.2
52.5°	1661.9	1661.9	1659.5	1666.8	1669.2	1666.8	1669.2	1640.1	1598.8	1533.1	1426.2
55°	1346.0	1346.0	1353.4	1363.1	1372.8	1375.2	1372.8	1360.7	1331.5	1278.0	1183.3
57.5°	1049.6	1044.8	1059.4	1073.9	1083.7	1093.4	1086.1	1076.4	1059.4	1015.6	942.7
60°	799.4	799.4	809.1	818.8	828.5	838.3	835.8	833.4	818.8	789.6	731.4
62.5°	588.0	590.4	590.4	597.7	607.4	617.2	624.4	617.2	609.9	590.4	551.5
65°	420.3	417.9	420.3	427.6	434.9	444.6	449.5	447.1	439.8	425.2	396.1
67.5°	281.9	279.4	289.1	291.6	296.4	306.2	303.7	306.2	303.7	291.6	267.3
70°	184.7	179.8	184.7	182.2	189.5	192.0	196.8	199.2	196.8	189.5	182.2
72.5°	114.2	111.8	114.2	116.6	119.1	121.5	126.3	126.3	123.9	119.1	109.3
75°	72.9	65.6	68.0	63.2	68.0	68.0	72.9	75.3	72.9	72.9	68.0
77.5°	43.8	43.8	43.8	43.8	43.8	43.8	43.8	46.2	48.6	43.8	41.3
80°	21.9	21.9	24.3	24.3	24.3	26.8	24.3	24.3	24.3	26.8	19.4
82.5°	17.0	14.6	14.6	14.6	17.0	14.6	14.6	14.6	14.6	14.6	14.6
85°	7.3	9.7	7.3	4.9	7.3	7.3	9.7	7.3	7.3	7.3	9.7
87.5°	2.4	2.4	0.0	0.0	0.0	2.4	0.0	2.4	2.4	4.9	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°	4577.6	4577.6	4577.6	4577.6	4577.6	4577.6	4577.6	4577.6	4577.6	4577.6	4577.6
2.5°	4589.8	4584.9	4584.9	4582.5	4587.3	4582.5	4584.9	4582.5	4582.5	4587.3	4582.5
5°	4606.8	4609.2	4604.3	4601.9	4609.2	4609.2	4609.2	4604.3	4604.3	4606.8	4604.3
7.5°	4631.1	4635.9	4638.3	4640.8	4645.7	4648.1	4648.1	4645.7	4643.2	4650.5	4640.8
10°	4657.8	4665.1	4679.7	4687.0	4699.1	4699.1	4704.0	4704.0	4699.1	4704.0	4701.5
12.5°	4648.1	4691.8	4716.1	4733.1	4750.1	4764.7	4769.5	4772.0	4769.5	4779.3	4769.5
15°	4665.1	4701.5	4740.4	4769.5	4801.1	4818.1	4823.0	4842.4	4847.3	4849.7	4835.2
17.5°	4638.3	4704.0	4745.2	4789.0	4835.2	4866.8	4895.9	4908.1	4910.5	4915.3	4895.9
20°	4577.6	4650.5	4713.7	4776.9	4830.3	4878.9	4903.2	4937.2	4927.5	4946.9	4920.2
22.5°	4495.0	4577.6	4657.8	4740.4	4796.3	4854.6	4905.6	4929.9	4942.1	4942.1	4912.9
25°	4363.8	4461.0	4548.4	4633.5	4718.5	4789.0	4847.3	4883.8	4891.1	4888.6	4854.6
27.5°	4159.7	4264.2	4366.2	4463.4	4567.9	4650.5	4718.5	4762.2	4774.4	4774.4	4738.0
30°	3877.8	3989.6	4089.2	4205.8	4312.8	4405.1	4499.9	4538.8	4560.6	4560.6	4519.3
32.5°	3542.5	3637.3	3729.6	3843.8	3960.5	4064.9	4154.8	4208.3	4235.0	4232.6	4196.1
35°	3178.1	3224.2	3294.7	3379.8	3484.2	3581.4	3668.9	3719.9	3766.1	3763.6	3729.6
37.5°	2813.6	2801.5	2808.8	2840.3	2905.9	2974.0	3042.0	3090.6	3129.5	3146.5	3139.2
40°	2456.5	2393.3	2332.5	2310.7	2315.5	2339.8	2376.3	2412.7	2456.5	2478.3	2488.0
42.5°	2135.7	2028.8	1921.9	1841.7	1795.6	1781.0	1798.0	1810.1	1836.9	1868.4	1900.1
45°	1878.2	1734.9	1593.9	1470.0	1392.2	1346.0	1336.3	1346.0	1360.7	1392.2	1433.6
47.5°	1666.8	1499.1	1341.2	1202.7	1088.5	1027.8	1010.8	1005.9	1020.5	1049.6	1105.5
50°	1479.7	1312.0	1137.1	976.7	857.7	789.6	765.4	755.6	772.6	794.5	845.5
52.5°	1275.6	1110.4	930.6	775.1	651.2	580.7	554.0	539.4	549.1	578.3	629.3
55°	1054.5	901.4	738.6	578.3	459.2	393.6	362.0	352.3	362.0	393.6	444.6
57.5°	833.4	704.6	568.5	417.9	311.0	245.4	213.8	204.1	230.8	243.0	296.4
60°	651.2	546.7	430.1	306.2	213.8	162.8	131.2	123.9	136.1	157.9	201.7
62.5°	488.4	422.8	330.4	218.7	157.9	104.5	87.5	80.2	87.5	104.5	138.5
65°	354.7	303.7	230.8	160.3	106.9	77.8	58.3	53.4	60.8	72.9	102.1
67.5°	243.0	204.1	160.3	111.8	72.9	48.6	41.3	41.3	43.8	53.4	75.3
70°	157.9	133.6	102.1	72.9	48.6	36.4	31.6	26.8	31.6	38.9	51.0
72.5°	99.6	85.0	65.6	51.0	36.4	26.8	21.9	19.4	24.3	29.1	38.9
75°	60.8	46.2	34.0	26.8	19.4	19.4	19.4	9.7	12.1	19.4	24.3
77.5°	36.4	31.6	26.8	21.9	17.0	9.7	9.7	9.7	12.1	14.6	21.9
80°	19.4	17.0	12.1	12.1	9.7	7.3	9.7	7.3	4.9	12.1	14.6
82.5°	12.1	9.7	9.7	9.7	12.1	4.9	7.3	4.9	7.3	9.7	7.3
85°	7.3	7.3	7.3	4.9	12.1	4.9	4.9	2.4	2.4	4.9	4.9
87.5°	0.0	2.4	2.4	0.0	2.4	0.0	2.4	2.4	2.4	2.4	2.4
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	4577.6	4577.6	4577.6	4577.6	4577.6	4577.6	4577.6	4577.6	4577.6	4577.6	4577.6
2.5°	4584.9	4582.5	4584.9	4582.5	4582.5	4582.5	4584.9	4584.9	4582.5	4582.5	4587.3
5°	4604.3	4604.3	4604.3	4601.9	4599.5	4599.5	4604.3	4604.3	4597.0	4604.3	4604.3
7.5°	4645.7	4638.3	4645.7	4635.9	4631.1	4633.5	4635.9	4631.1	4626.2	4628.6	4628.6
10°	4699.1	4691.8	4691.8	4684.5	4677.2	4672.3	4667.5	4655.3	4643.2	4640.8	4631.1
12.5°	4762.2	4750.1	4742.9	4728.2	4716.1	4699.1	4684.5	4665.1	4640.8	4623.8	4606.8
15°	4825.4	4806.0	4789.0	4764.7	4738.0	4708.8	4677.2	4645.7	4606.8	4572.8	4543.6
17.5°	4876.4	4849.7	4818.1	4779.3	4740.4	4696.7	4650.5	4604.3	4548.4	4504.7	4470.7
20°	4893.4	4854.6	4813.3	4762.2	4711.2	4650.5	4592.2	4531.4	4468.2	4422.1	4383.2
22.5°	4871.6	4825.4	4774.4	4721.0	4652.9	4587.3	4519.3	4448.8	4392.9	4329.8	4293.3
25°	4810.9	4755.0	4699.1	4635.9	4570.3	4497.4	4424.6	4351.7	4283.6	4249.6	4203.5
27.5°	4687.0	4626.2	4565.5	4499.9	4424.6	4351.7	4276.3	4205.8	4147.6	4101.4	4074.7
30°	4468.2	4397.8	4327.3	4256.9	4191.3	4115.9	4045.5	3987.2	3928.8	3892.4	3865.7
32.5°	4132.9	4069.8	3999.4	3931.3	3870.6	3807.4	3749.1	3698.1	3656.7	3632.4	3613.0
35°	3681.1	3617.9	3564.4	3515.8	3464.8	3438.1	3401.6	3372.4	3355.4	3345.7	3343.3
37.5°	3112.5	3076.0	3059.0	3049.3	3039.6	3032.3	3037.1	3049.3	3059.0	3076.0	3095.5
40°	2505.0	2536.6	2546.4	2580.4	2611.9	2653.3	2699.4	2752.9	2796.6	2852.5	2891.4
42.5°	1951.1	2009.4	2077.4	2150.3	2228.1	2303.4	2395.7	2480.7	2558.5	2628.9	2689.7
45°	1499.1	1589.0	1691.1	1795.6	1900.1	2009.4	2121.2	2225.6	2318.0	2393.3	2456.5
47.5°	1168.7	1268.3	1399.5	1528.3	1654.7	1783.4	1907.3	2016.7	2094.4	2167.3	2223.2
50°	925.7	1039.9	1183.3	1331.5	1470.0	1606.0	1737.2	1839.3	1917.1	1975.4	2016.7
52.5°	716.7	852.8	998.6	1154.1	1302.3	1450.6	1572.0	1666.8	1730.0	1781.0	1812.6
55°	534.5	668.2	823.7	984.0	1134.7	1278.0	1392.2	1474.9	1530.8	1559.9	1576.9
57.5°	386.3	507.8	663.3	823.7	959.7	1095.8	1188.1	1263.5	1295.0	1312.0	1319.3
60°	281.9	393.6	532.1	670.6	799.4	908.7	988.9	1039.9	1064.2	1073.9	1071.5
62.5°	206.5	303.7	422.8	539.4	643.9	733.8	796.9	831.0	843.1	848.0	840.7
65°	157.9	233.2	335.3	425.2	505.4	571.0	617.2	639.0	646.3	643.9	639.0
67.5°	116.6	175.0	250.3	318.3	376.6	427.6	451.9	471.4	476.2	469.0	461.6
70°	82.6	128.8	182.2	228.4	272.1	301.3	328.0	330.4	330.4	328.0	323.2
72.5°	58.3	89.9	123.9	155.5	182.2	204.1	213.8	221.1	218.7	216.2	211.4
75°	38.9	55.9	89.9	97.2	121.5	128.8	138.5	138.5	140.9	133.6	133.6
77.5°	24.3	38.9	53.4	63.2	72.9	82.6	87.5	87.5	89.9	87.5	87.5
80°	14.6	24.3	29.1	43.8	43.8	51.0	53.4	55.9	51.0	58.3	51.0
82.5°	9.7	14.6	21.9	21.9	26.8	31.6	31.6	34.0	34.0	31.6	31.6
85°	7.3	9.7	12.1	14.6	14.6	17.0	14.6	14.6	17.0	19.4	17.0
87.5°	2.4	4.9	2.4	4.9	4.9	9.7	7.3	7.3	7.3	9.7	9.7
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: P248401

CATALOG NUMBER: LSR8B90D010 EC8B90940 8LBDW0LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4577.6	4577.6	4577.6	4577.6
2.5°	4582.5	4584.9	4582.5	4582.5
5°	4604.3	4601.9	4604.3	4599.5
7.5°	4621.3	4621.3	4618.9	4618.9
10°	4621.3	4611.6	4611.6	4611.6
12.5°	4584.9	4572.8	4565.5	4560.6
15°	4521.7	4499.9	4490.1	4487.7
17.5°	4439.1	4419.7	4407.5	4400.2
20°	4344.4	4324.9	4310.3	4312.8
22.5°	4261.7	4239.9	4230.1	4225.3
25°	4179.1	4152.4	4145.1	4140.3
27.5°	4045.5	4030.9	4023.6	4016.4
30°	3841.4	3834.1	3822.0	3839.0
32.5°	3605.7	3593.5	3583.8	3591.2
35°	3345.7	3338.4	3345.7	3340.9
37.5°	3107.6	3114.9	3124.6	3129.5
40°	2920.5	2947.2	2957.0	2961.8
42.5°	2733.5	2765.0	2784.5	2796.6
45°	2502.6	2534.2	2556.1	2570.7
47.5°	2264.5	2291.3	2313.1	2310.7
50°	2048.3	2062.8	2072.5	2082.3
52.5°	1829.6	1829.6	1832.0	1832.0
55°	1581.8	1576.9	1574.5	1576.9
57.5°	1309.6	1304.8	1302.3	1295.0
60°	1061.8	1047.2	1037.5	1037.5
62.5°	831.0	813.9	806.7	804.3
65°	624.4	622.0	607.4	605.0
67.5°	451.9	442.2	432.5	434.9
70°	318.3	303.7	303.7	298.9
72.5°	206.5	199.2	196.8	196.8
75°	128.8	128.8	123.9	133.6
77.5°	85.0	85.0	82.6	85.0
80°	51.0	51.0	51.0	48.6
82.5°	31.6	34.0	31.6	31.6
85°	17.0	19.4	14.6	21.9
87.5°	9.7	12.1	9.7	12.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)