

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: P249328

Luminaire Tested: **LSR8B90D010 EC8B90840 8LBDW0GPH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249328  
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 8LBDW0GPH  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 4000 CCT WITH GRAPHITE TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9283.0 lumens  
Efficiency: N/A  
Efficacy: 107.8 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

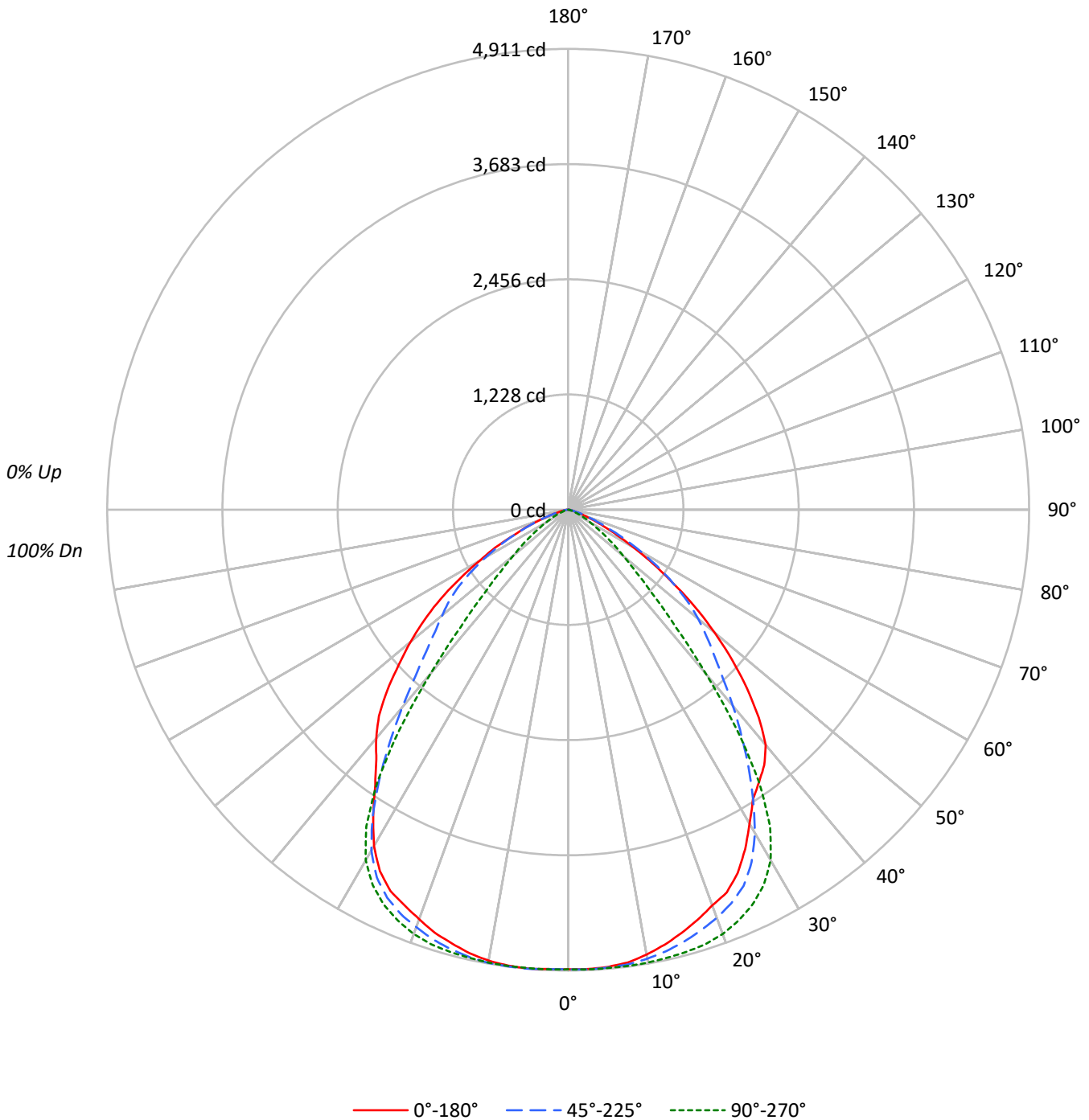
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	151033	151033	151033
5°	151366	151774	151935
10°	150730	153445	152787
15°	149057	155691	152754
20°	147269	157878	152358
25°	145358	158059	152513
30°	137517	153614	147344
35°	133411	133505	134894
40°	131759	91860	128056
45°	117400	55148	119005
50°	97620	36704	105185
55°	73212	25300	89185
60°	49616	16861	67291
65°	29930	10937	46231
70°	16589	5923	28445
75°	7518	2502	14726
80°	6535	2806	10264
85°	7430	3715	10225



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	467.4	5.0
10°-20°	1357.5	14.6
20°-30°	2060.4	22.2
30°-40°	2164.1	23.3
40°-50°	1622.5	17.5
50°-60°	1041.0	11.2
60°-70°	445.3	4.8
70°-80°	105.2	1.1
80°-90°	19.6	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°	3885.4	41.9
0°-40°	6049.4	65.2
0°-60°	8712.9	93.9
0°-90°	9283.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9283.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	4898	4898	4898	4898	4898	
5°	4890	4898	4903	4911	4908	464
15°	4669	4766	4877	4845	4785	1317
25°	4272	4422	4646	4561	4482	1952
35°	3544	3347	3546	3504	3583	2224
45°	2692	2200	1265	2137	2729	2062
55°	1362	1362	471	1420	1659	1235
65°	410	484	150	623	634	438
75°	63	74	21	126	124	92
85°	21	13	10	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°	4897.9	4897.9	4897.9	4897.9	4897.9	4897.9	4897.9	4897.9	4897.9	4897.9	4897.9
2.5°	4900.5	4905.8	4903.2	4903.2	4900.5	4903.2	4903.2	4908.4	4908.4	4903.2	4900.5
5°	4890.0	4895.3	4895.3	4890.0	4890.0	4903.2	4895.3	4900.5	4900.5	4897.9	4897.9
7.5°	4866.4	4866.4	4876.9	4869.0	4869.0	4876.9	4874.2	4879.5	4884.8	4887.4	4887.4
10°	4813.8	4819.0	4821.7	4821.7	4824.3	4832.2	4837.4	4848.0	4853.2	4858.5	4861.1
12.5°	4748.1	4755.9	4758.6	4755.9	4763.8	4774.3	4787.5	4800.6	4808.5	4819.0	4826.9
15°	4669.1	4669.1	4674.4	4682.3	4687.6	4703.4	4716.5	4732.2	4753.3	4766.5	4779.6
17.5°	4582.4	4587.7	4595.6	4595.6	4606.1	4632.3	4640.3	4663.9	4687.6	4700.7	4727.0
20°	4487.8	4493.0	4500.9	4506.2	4519.3	4540.4	4556.1	4577.2	4603.5	4627.1	4653.4
22.5°	4414.1	4403.7	4408.9	4414.1	4427.3	4445.7	4464.1	4490.4	4516.7	4540.4	4566.7
25°	4272.2	4274.8	4282.7	4287.9	4303.8	4319.5	4340.6	4372.1	4395.7	4422.1	4450.9
27.5°	4080.3	4082.9	4096.0	4096.0	4109.2	4135.5	4148.6	4174.9	4206.5	4232.7	4267.0
30°	3862.1	3867.3	3867.3	3877.8	3885.7	3898.9	3912.0	3938.3	3954.1	3977.7	4025.1
32.5°	3662.3	3667.5	3664.8	3662.3	3654.4	3651.7	3649.1	3654.4	3659.6	3667.5	3685.9
35°	3544.0	3530.8	3520.3	3501.9	3480.9	3454.6	3430.9	3399.4	3370.4	3346.7	3320.5
37.5°	3430.9	3428.2	3412.5	3386.2	3344.1	3296.8	3241.6	3173.3	3104.9	3031.3	2960.3
40°	3273.2	3265.2	3252.1	3215.3	3168.0	3110.1	3036.6	2952.4	2842.0	2728.9	2613.3
42.5°	3005.0	3007.6	2991.8	2962.9	2918.3	2863.0	2786.8	2694.8	2576.5	2442.4	2292.5
45°	2692.1	2692.1	2686.9	2663.2	2631.7	2587.0	2529.1	2452.9	2337.2	2200.5	2040.1
47.5°	2366.1	2368.8	2360.9	2355.6	2342.5	2313.6	2271.5	2213.7	2132.2	2000.7	1840.3
50°	2034.9	2034.9	2048.0	2045.4	2045.4	2034.9	2016.5	1982.3	1911.3	1806.1	1656.3
52.5°	1703.6	1708.9	1716.8	1727.3	1740.4	1761.4	1740.4	1724.6	1679.9	1598.4	1469.6
55°	1361.8	1367.1	1380.2	1398.6	1414.4	1435.5	1440.7	1440.7	1417.0	1361.8	1264.6
57.5°	1070.0	1062.1	1072.7	1088.4	1109.5	1130.5	1146.3	1164.7	1162.0	1125.2	1046.4
60°	804.5	807.1	815.0	830.8	846.6	865.0	886.0	901.8	909.7	891.3	841.3
62.5°	586.3	586.3	596.8	612.5	620.4	646.8	659.9	667.8	675.6	673.0	641.5
65°	410.2	415.4	420.6	428.6	436.4	452.2	460.1	475.8	481.1	483.7	460.1
67.5°	289.2	281.3	286.6	291.8	299.7	310.3	326.0	326.0	333.9	333.9	318.1
70°	184.0	184.0	186.7	194.5	199.8	202.4	207.7	212.9	220.8	218.2	218.2
72.5°	123.6	120.9	123.6	126.2	128.8	136.7	136.7	139.3	144.6	147.2	136.7
75°	63.1	65.7	71.0	68.4	76.2	71.0	73.6	81.5	78.9	73.6	73.6
77.5°	52.6	52.6	52.6	50.0	55.2	55.2	52.6	57.8	55.2	55.2	52.6
80°	36.8	39.4	36.8	34.2	36.8	34.2	34.2	34.2	34.2	34.2	31.5
82.5°	28.9	23.7	26.3	23.7	26.3	26.3	23.7	21.0	21.0	23.7	21.0
85°	21.0	15.8	18.4	18.4	15.8	15.8	15.8	15.8	15.8	13.1	13.1
87.5°	13.1	7.9	7.9	7.9	10.5	10.5	10.5	7.9	10.5	10.5	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°	4897.9	4897.9	4897.9	4897.9	4897.9	4897.9	4897.9	4897.9	4897.9	4897.9	4897.9
2.5°	4905.8	4903.2	4908.4	4905.8	4905.8	4903.2	4905.8	4903.2	4908.4	4897.9	4900.5
5°	4905.8	4900.5	4903.2	4905.8	4908.4	4903.2	4903.2	4903.2	4908.4	4903.2	4905.8
7.5°	4895.3	4892.6	4900.5	4905.8	4903.2	4900.5	4905.8	4903.2	4908.4	4905.8	4911.0
10°	4874.2	4876.9	4882.1	4890.0	4892.6	4895.3	4900.5	4900.5	4908.4	4897.9	4903.2
12.5°	4842.7	4853.2	4866.4	4871.6	4882.1	4882.1	4887.4	4890.0	4895.3	4892.6	4900.5
15°	4803.3	4816.4	4832.2	4845.3	4858.5	4866.4	4874.2	4876.9	4884.8	4876.9	4879.5
17.5°	4755.9	4771.7	4795.4	4811.1	4832.2	4840.1	4850.5	4855.8	4863.7	4858.5	4861.1
20°	4690.2	4708.6	4734.9	4758.6	4771.7	4790.1	4803.3	4811.1	4816.4	4811.1	4813.8
22.5°	4598.2	4624.5	4658.7	4677.1	4703.4	4719.1	4721.8	4740.2	4753.3	4740.2	4745.4
25°	4490.4	4516.7	4543.0	4582.4	4606.1	4624.5	4642.9	4645.5	4658.7	4656.0	4653.4
27.5°	4311.6	4345.8	4390.5	4422.1	4453.6	4482.5	4503.6	4508.8	4522.0	4516.7	4519.3
30°	4067.1	4104.0	4146.0	4195.9	4240.7	4269.5	4295.8	4314.2	4327.4	4319.5	4316.9
32.5°	3720.1	3756.9	3801.6	3851.5	3904.1	3946.2	3977.7	4001.4	4017.2	4011.9	3998.8
35°	3323.1	3333.6	3362.6	3402.0	3446.6	3491.4	3520.3	3546.5	3564.9	3570.2	3570.2
37.5°	2915.6	2881.5	2860.4	2860.4	2886.7	2905.1	2931.4	2947.1	2976.1	2986.6	2994.5
40°	2521.2	2442.4	2368.8	2313.6	2276.8	2274.1	2274.1	2282.0	2308.3	2342.5	2374.0
42.5°	2169.0	2042.7	1929.7	1827.2	1753.6	1711.5	1693.1	1695.8	1716.8	1748.3	1800.9
45°	1887.6	1729.9	1587.9	1464.4	1364.5	1298.7	1267.2	1264.6	1280.3	1317.1	1375.0
47.5°	1669.4	1501.2	1340.8	1198.8	1091.1	1020.1	983.3	972.8	983.3	1017.4	1085.8
50°	1488.0	1314.5	1148.9	1001.7	886.0	812.4	778.2	765.1	778.2	807.1	875.4
52.5°	1319.8	1141.0	985.9	843.9	720.3	657.2	620.4	612.5	620.4	654.6	709.9
55°	1125.2	972.8	820.3	678.3	570.5	507.4	478.5	470.6	478.5	510.1	567.9
57.5°	933.3	801.9	667.8	538.9	447.0	391.7	365.4	354.9	373.3	394.3	462.7
60°	754.5	649.4	536.3	423.3	347.1	297.1	276.0	273.4	278.7	305.0	352.3
62.5°	591.6	504.8	415.4	323.4	260.3	239.2	212.9	210.4	215.6	231.3	268.2
65°	425.9	370.7	302.3	236.6	186.7	157.7	147.2	149.9	155.1	165.6	199.8
67.5°	297.1	257.6	210.4	165.6	128.8	115.7	105.2	102.5	105.2	123.6	142.0
70°	199.8	176.1	142.0	126.2	89.4	71.0	73.6	65.7	76.2	76.2	92.0
72.5°	131.4	115.7	94.6	73.6	63.1	50.0	50.0	47.3	52.6	55.2	68.4
75°	68.4	52.6	52.6	36.8	26.3	13.1	23.7	21.0	18.4	21.0	26.3
77.5°	47.3	39.4	36.8	28.9	26.3	21.0	21.0	21.0	21.0	23.7	26.3
80°	28.9	28.9	21.0	18.4	15.8	13.1	15.8	15.8	15.8	15.8	18.4
82.5°	18.4	15.8	15.8	13.1	13.1	10.5	10.5	10.5	10.5	10.5	15.8
85°	15.8	10.5	10.5	7.9	10.5	18.4	7.9	10.5	10.5	10.5	7.9
87.5°	5.3	7.9	7.9	7.9	5.3	2.6	5.3	7.9	7.9	13.1	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



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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	4897.9	4897.9	4897.9	4897.9	4897.9	4897.9	4897.9	4897.9	4897.9	4897.9	4897.9
2.5°	4905.8	4908.4	4908.4	4905.8	4905.8	4900.5	4911.0	4903.2	4905.8	4916.3	4908.4
5°	4911.0	4913.7	4913.7	4911.0	4911.0	4911.0	4913.7	4913.7	4911.0	4908.4	4913.7
7.5°	4921.6	4918.9	4918.9	4913.7	4913.7	4908.4	4913.7	4905.8	4911.0	4905.8	4913.7
10°	4908.4	4911.0	4908.4	4905.8	4905.8	4903.2	4903.2	4895.3	4897.9	4890.0	4895.3
12.5°	4900.5	4897.9	4897.9	4892.6	4887.4	4882.1	4879.5	4871.6	4871.6	4853.2	4861.1
15°	4879.5	4882.1	4874.2	4863.7	4858.5	4845.3	4840.1	4829.5	4819.0	4805.9	4808.5
17.5°	4861.1	4853.2	4842.7	4832.2	4811.1	4800.6	4790.1	4774.3	4769.0	4753.3	4748.1
20°	4805.9	4800.6	4787.5	4769.0	4755.9	4732.2	4721.8	4706.0	4692.8	4677.1	4669.1
22.5°	4734.9	4729.6	4713.9	4695.5	4674.4	4663.9	4653.4	4624.5	4611.3	4595.6	4592.9
25°	4645.5	4637.6	4621.9	4600.8	4590.3	4561.4	4550.8	4529.8	4524.6	4508.8	4506.2
27.5°	4508.8	4498.3	4479.9	4453.6	4435.2	4416.8	4406.3	4390.5	4385.3	4369.4	4366.9
30°	4303.8	4290.6	4253.8	4243.3	4211.7	4193.3	4193.3	4172.3	4174.9	4164.4	4164.4
32.5°	3980.4	3959.3	3930.4	3909.4	3888.3	3877.8	3877.8	3869.9	3875.2	3875.2	3880.5
35°	3551.8	3522.9	3507.1	3494.0	3494.0	3504.5	3536.1	3544.0	3559.7	3572.9	3583.4
37.5°	3002.3	2999.8	3018.2	3033.9	3073.3	3118.1	3173.3	3220.6	3265.2	3296.8	3328.3
40°	2408.2	2473.9	2526.5	2600.1	2660.6	2747.3	2847.2	2928.7	3005.0	3060.2	3118.1
42.5°	1879.7	1963.9	2074.3	2182.1	2289.9	2408.2	2539.7	2652.7	2752.6	2828.8	2889.3
45°	1464.4	1580.0	1714.2	1850.9	1990.2	2137.4	2274.1	2389.8	2495.0	2573.8	2634.3
47.5°	1180.4	1306.6	1459.1	1609.0	1766.7	1921.8	2074.3	2174.2	2260.9	2324.1	2379.3
50°	975.3	1109.5	1269.8	1440.7	1598.4	1753.6	1885.0	1982.3	2053.3	2108.5	2142.6
52.5°	815.0	956.9	1127.9	1298.7	1456.5	1598.4	1716.8	1790.4	1848.2	1887.6	1919.2
55°	673.0	809.8	970.1	1130.5	1285.6	1419.7	1516.9	1572.2	1616.8	1640.5	1658.9
57.5°	549.5	675.6	822.9	970.1	1104.2	1214.6	1290.9	1346.1	1367.1	1385.5	1382.9
60°	431.2	549.5	683.6	809.8	925.4	1014.8	1070.0	1101.6	1117.3	1125.2	1120.0
62.5°	339.1	447.0	549.5	659.9	744.0	820.3	872.9	872.9	880.7	883.4	891.3
65°	252.4	333.9	423.3	504.8	573.1	623.1	652.0	659.9	670.4	667.8	662.5
67.5°	186.7	247.1	312.8	373.3	420.6	452.2	473.2	491.7	489.0	483.7	481.1
70°	128.8	168.3	226.1	262.9	297.1	328.7	333.9	336.5	339.1	341.8	336.5
72.5°	89.4	118.3	149.9	181.4	202.4	215.6	228.8	231.3	231.3	231.3	228.8
75°	44.7	60.5	89.4	102.5	120.9	126.2	136.7	136.7	144.6	134.1	131.4
77.5°	39.4	47.3	63.1	73.6	81.5	89.4	92.0	99.9	97.3	92.0	94.6
80°	23.7	28.9	39.4	44.7	55.2	57.8	60.5	63.1	60.5	63.1	63.1
82.5°	18.4	21.0	26.3	26.3	34.2	34.2	36.8	36.8	39.4	39.4	39.4
85°	10.5	18.4	15.8	31.5	21.0	21.0	26.3	31.5	26.3	26.3	31.5
87.5°	10.5	10.5	7.9	10.5	10.5	10.5	13.1	15.8	15.8	18.4	15.8
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: P249328

CATALOG NUMBER: LSR8B90D010 EC8B90840 8LBDW0GPH

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	4897.9	4897.9	4897.9	4897.9
2.5°	4905.8	4911.0	4903.2	4900.5
5°	4913.7	4913.7	4908.4	4908.4
7.5°	4913.7	4913.7	4905.8	4900.5
10°	4892.6	4892.6	4884.8	4879.5
12.5°	4853.2	4853.2	4850.5	4842.7
15°	4803.3	4803.3	4792.7	4784.9
17.5°	4734.9	4740.2	4727.0	4727.0
20°	4661.3	4658.7	4648.2	4642.9
22.5°	4585.1	4579.8	4577.2	4561.4
25°	4503.6	4498.3	4490.4	4482.5
27.5°	4364.2	4361.6	4353.7	4343.2
30°	4151.2	4148.6	4138.1	4138.1
32.5°	3875.2	3872.6	3862.1	3864.7
35°	3588.6	3599.2	3593.9	3583.4
37.5°	3349.4	3357.3	3362.6	3357.3
40°	3149.6	3173.3	3175.9	3181.2
42.5°	2936.7	2968.2	2978.7	2983.9
45°	2681.6	2710.5	2734.2	2728.9
47.5°	2421.3	2442.4	2463.4	2447.6
50°	2171.6	2184.7	2192.6	2192.6
52.5°	1935.0	1935.0	1932.4	1935.0
55°	1664.2	1664.2	1653.7	1658.9
57.5°	1380.2	1385.5	1377.6	1364.5
60°	1117.3	1104.2	1098.9	1091.1
62.5°	870.2	870.2	851.8	875.4
65°	652.0	644.1	636.2	633.6
67.5°	473.2	470.6	462.7	460.1
70°	333.9	323.4	320.7	315.5
72.5°	223.5	223.5	218.2	218.2
75°	136.7	123.6	120.9	123.6
77.5°	94.6	92.0	92.0	89.4
80°	63.1	60.5	65.7	57.8
82.5°	39.4	42.1	39.4	42.1
85°	26.3	31.5	28.9	28.9
87.5°	15.8	15.8	15.8	15.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)