

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: P249202

Luminaire Tested: **LSR8B90D010 EC8B90830 8LBDW0WMH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249202  
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 EC8B90830 8LBDW0WMH  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 3000 CCT WITH WARM HAZE TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9145.0 lumens  
Efficiency: N/A  
Efficacy: 106.2 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

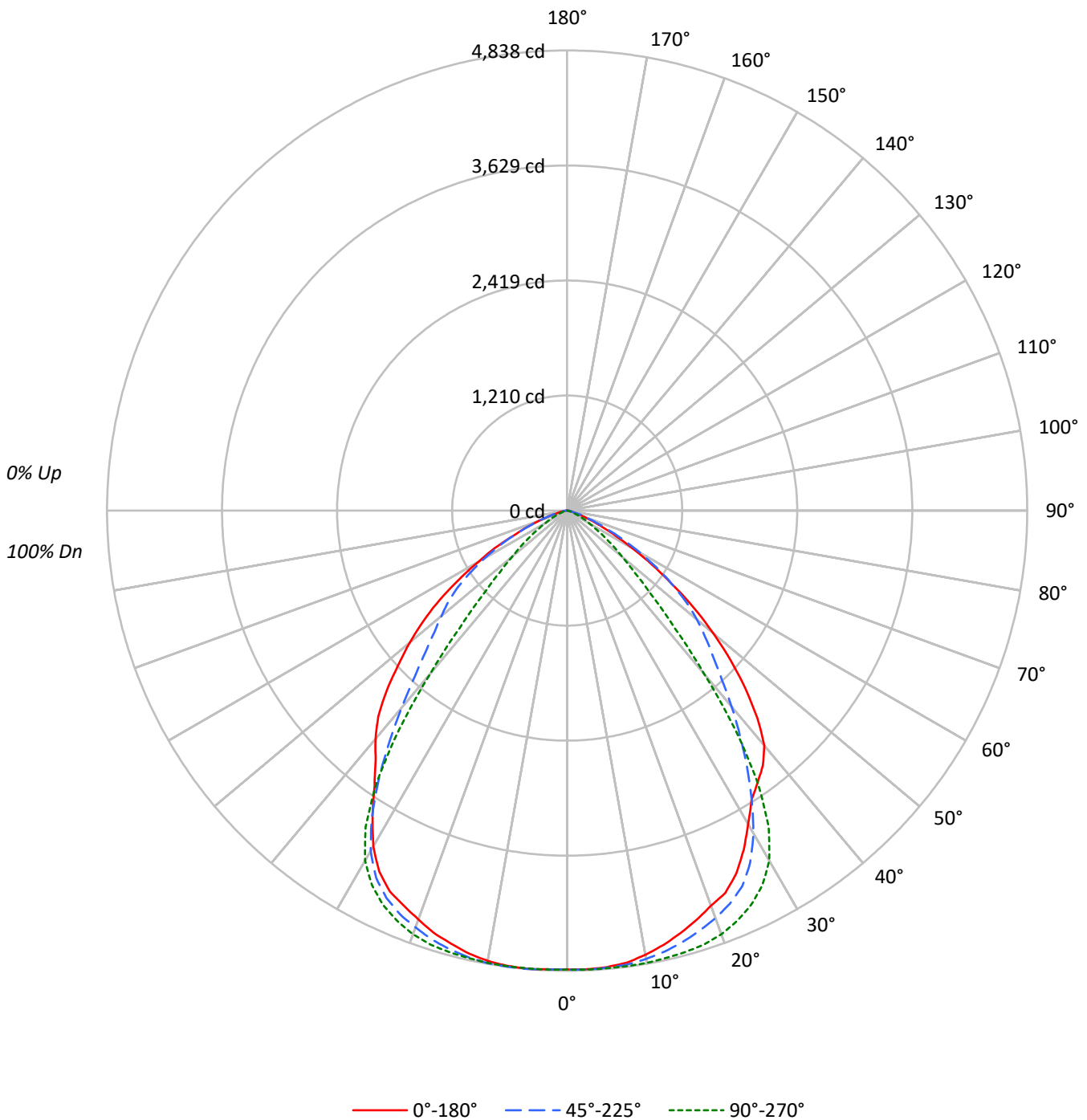
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	148788	148788	148788
5°	149115	149518	149679
10°	148488	151165	150517
15°	146841	153376	150481
20°	145080	155531	150094
25°	143197	155711	150247
30°	135473	151332	145154
35°	131427	131521	132888
40°	129799	90495	126152
45°	115656	54328	117239
50°	96166	36157	103621
55°	72126	24924	87857
60°	48876	16608	66292
65°	29485	10777	45545
70°	16346	5842	28022
75°	7411	2466	14500
80°	6428	2752	10122
85°	7324	3644	10084



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	460.5	5.0
10°-20°	1337.3	14.6
20°-30°	2029.8	22.2
30°-40°	2131.9	23.3
40°-50°	1598.3	17.5
50°-60°	1025.5	11.2
60°-70°	438.7	4.8
70°-80°	103.6	1.1
80°-90°	19.3	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°	3827.6	41.9
0°-40°	5959.5	65.2
0°-60°	8583.4	93.9
0°-90°	9145.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9145.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	4825	4825	4825	4825	4825	
5°	4817	4825	4830	4838	4836	458
15°	4600	4696	4804	4773	4714	1297
25°	4209	4356	4576	4494	4416	1923
35°	3491	3297	3494	3452	3530	2191
45°	2652	2168	1246	2106	2688	2031
55°	1342	1342	464	1399	1634	1217
65°	404	477	148	614	624	431
75°	62	72	21	124	122	91
85°	21	13	10	21	28	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°	4825.1	4825.1	4825.1	4825.1	4825.1	4825.1	4825.1	4825.1	4825.1	4825.1	4825.1
2.5°	4827.7	4832.9	4830.3	4830.3	4827.7	4830.3	4830.3	4835.5	4835.5	4830.3	4827.7
5°	4817.3	4822.5	4822.5	4817.3	4817.3	4830.3	4822.5	4827.7	4827.7	4825.1	4825.1
7.5°	4794.0	4794.0	4804.4	4796.6	4796.6	4804.4	4801.8	4807.0	4812.2	4814.8	4814.8
10°	4742.2	4747.4	4750.0	4750.0	4752.6	4760.3	4765.5	4775.9	4781.0	4786.2	4788.8
12.5°	4677.5	4685.2	4687.8	4685.2	4693.0	4703.3	4716.3	4729.3	4737.1	4747.4	4755.2
15°	4599.7	4599.7	4604.9	4612.7	4617.9	4633.4	4646.4	4661.9	4682.6	4695.6	4708.5
17.5°	4514.3	4519.5	4527.2	4527.2	4537.6	4563.5	4571.3	4594.6	4617.9	4630.8	4656.8
20°	4421.1	4426.2	4434.0	4439.2	4452.1	4472.9	4488.4	4509.1	4535.0	4558.3	4584.2
22.5°	4348.5	4338.2	4343.3	4348.5	4361.5	4379.6	4397.8	4423.6	4449.5	4472.9	4498.8
25°	4208.7	4211.3	4219.1	4224.2	4239.8	4255.3	4276.0	4307.1	4330.4	4356.3	4384.8
27.5°	4019.6	4022.2	4035.1	4035.1	4048.1	4074.0	4086.9	4112.8	4144.0	4169.8	4203.5
30°	3804.7	3809.8	3809.8	3820.2	3827.9	3840.9	3853.8	3879.8	3895.3	3918.6	3965.2
32.5°	3607.8	3613.0	3610.4	3607.8	3600.0	3597.4	3594.8	3600.0	3605.2	3613.0	3631.1
35°	3491.3	3478.3	3468.0	3449.8	3429.1	3403.2	3379.9	3348.8	3320.3	3297.0	3271.1
37.5°	3379.9	3377.3	3361.8	3335.8	3294.4	3247.8	3193.4	3126.1	3058.7	2986.2	2916.3
40°	3224.5	3216.7	3203.8	3167.5	3120.9	3063.9	2991.4	2908.5	2799.7	2688.4	2574.4
42.5°	2960.3	2962.9	2947.4	2918.9	2874.9	2820.4	2745.3	2654.7	2538.2	2406.0	2258.5
45°	2652.1	2652.1	2646.9	2623.6	2592.5	2548.5	2491.5	2416.4	2302.5	2167.8	2009.8
47.5°	2330.9	2333.5	2325.8	2320.6	2307.6	2279.2	2237.7	2180.8	2100.5	1970.9	1812.9
50°	2004.6	2004.6	2017.6	2015.0	2015.0	2004.6	1986.5	1952.8	1882.9	1779.3	1631.7
52.5°	1678.3	1683.5	1691.3	1701.6	1714.5	1735.3	1714.5	1699.0	1655.0	1574.7	1447.8
55°	1341.6	1346.8	1359.7	1377.8	1393.4	1414.1	1419.3	1419.3	1396.0	1341.6	1245.8
57.5°	1054.1	1046.3	1056.7	1072.3	1093.0	1113.7	1129.2	1147.4	1144.8	1108.5	1030.8
60°	792.5	795.1	802.9	818.4	834.0	852.1	872.8	888.3	896.1	878.0	828.8
62.5°	577.6	577.6	587.9	603.4	611.2	637.1	650.1	657.9	665.6	663.0	631.9
65°	404.1	409.2	414.4	422.2	429.9	445.4	453.2	468.8	474.0	476.6	453.2
67.5°	284.9	277.1	282.3	287.5	295.3	305.6	321.2	321.2	328.9	328.9	313.4
70°	181.3	181.3	183.9	191.6	196.8	199.4	204.6	209.8	217.6	215.0	215.0
72.5°	121.7	119.1	121.7	124.3	126.9	134.7	134.7	137.3	142.5	145.1	134.7
75°	62.2	64.8	69.9	67.4	75.1	69.9	72.5	80.3	77.7	72.5	72.5
77.5°	51.8	51.8	51.8	49.2	54.4	54.4	51.8	57.0	54.4	54.4	51.8
80°	36.2	38.8	36.2	33.7	36.2	33.7	33.7	33.7	33.7	33.7	31.1
82.5°	28.5	23.3	25.9	23.3	25.9	25.9	23.3	20.7	20.7	23.3	20.7
85°	20.7	15.5	18.1	18.1	15.5	15.5	15.5	15.5	15.5	12.9	12.9
87.5°	12.9	7.8	7.8	7.8	10.3	10.3	10.3	7.8	10.3	10.3	5.2
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°	4825.1	4825.1	4825.1	4825.1	4825.1	4825.1	4825.1	4825.1	4825.1	4825.1	4825.1
2.5°	4832.9	4830.3	4835.5	4832.9	4832.9	4830.3	4832.9	4830.3	4835.5	4825.1	4827.7
5°	4832.9	4827.7	4830.3	4832.9	4835.5	4830.3	4830.3	4830.3	4835.5	4830.3	4832.9
7.5°	4822.5	4819.9	4827.7	4832.9	4830.3	4827.7	4832.9	4830.3	4835.5	4832.9	4838.0
10°	4801.8	4804.4	4809.6	4817.3	4819.9	4822.5	4827.7	4827.7	4835.5	4825.1	4830.3
12.5°	4770.7	4781.0	4794.0	4799.2	4809.6	4809.6	4814.8	4817.3	4822.5	4819.9	4827.7
15°	4731.9	4744.8	4760.3	4773.3	4786.2	4794.0	4801.8	4804.4	4812.2	4804.4	4807.0
17.5°	4685.2	4700.7	4724.1	4739.6	4760.3	4768.1	4778.4	4783.6	4791.4	4786.2	4788.8
20°	4620.5	4638.6	4664.5	4687.8	4700.7	4718.9	4731.9	4739.6	4744.8	4739.6	4742.2
22.5°	4529.8	4555.7	4589.4	4607.5	4633.4	4649.0	4651.6	4669.7	4682.6	4669.7	4674.9
25°	4423.6	4449.5	4475.5	4514.3	4537.6	4555.7	4573.9	4576.5	4589.4	4586.8	4584.2
27.5°	4247.5	4281.2	4325.2	4356.3	4387.4	4415.9	4436.6	4441.7	4454.7	4449.5	4452.1
30°	4006.6	4042.9	4084.4	4133.6	4177.6	4206.1	4232.0	4250.1	4263.0	4255.3	4252.7
32.5°	3664.8	3701.1	3745.1	3794.3	3846.1	3887.5	3918.6	3941.9	3957.5	3952.3	3939.3
35°	3273.7	3284.1	3312.6	3351.4	3395.4	3439.5	3468.0	3493.8	3512.0	3517.1	3517.1
37.5°	2872.3	2838.6	2817.9	2817.9	2843.8	2861.9	2887.8	2903.3	2931.8	2942.2	2950.0
40°	2483.7	2406.0	2333.5	2279.2	2242.9	2240.3	2240.3	2248.1	2274.0	2307.6	2338.7
42.5°	2136.7	2012.4	1901.0	1800.0	1727.5	1686.1	1668.0	1670.5	1691.3	1722.3	1774.1
45°	1859.6	1704.2	1564.3	1442.6	1344.2	1279.4	1248.4	1245.8	1261.3	1297.5	1354.6
47.5°	1644.6	1478.9	1320.9	1181.0	1074.9	1004.9	968.6	958.3	968.6	1002.3	1069.7
50°	1465.9	1295.0	1131.8	986.8	872.8	800.3	766.6	753.7	766.6	795.1	862.4
52.5°	1300.1	1124.0	971.2	831.4	709.6	647.5	611.2	603.4	611.2	644.9	699.3
55°	1108.5	958.3	808.1	668.2	562.0	499.9	471.4	463.6	471.4	502.5	559.4
57.5°	919.5	789.9	657.9	530.9	440.3	385.9	360.0	349.6	367.7	388.5	455.8
60°	743.3	639.7	528.3	417.0	341.9	292.7	271.9	269.3	274.5	300.4	347.0
62.5°	582.8	497.3	409.2	318.6	256.4	235.7	209.8	207.2	212.4	227.9	264.2
65°	419.6	365.2	297.8	233.1	183.9	155.4	145.1	147.7	152.8	163.2	196.8
67.5°	292.7	253.8	207.2	163.2	126.9	113.9	103.6	101.0	103.6	121.7	139.9
70°	196.8	173.5	139.9	124.3	88.1	69.9	72.5	64.8	75.1	75.1	90.6
72.5°	129.5	113.9	93.2	72.5	62.2	49.2	49.2	46.6	51.8	54.4	67.4
75°	67.4	51.8	51.8	36.2	25.9	12.9	23.3	20.7	18.1	20.7	25.9
77.5°	46.6	38.8	36.2	28.5	25.9	20.7	20.7	20.7	20.7	23.3	25.9
80°	28.5	28.5	20.7	18.1	15.5	12.9	15.5	15.5	15.5	15.5	18.1
82.5°	18.1	15.5	15.5	12.9	12.9	10.3	10.3	10.3	10.3	10.3	15.5
85°	15.5	10.3	10.3	7.8	10.3	18.1	7.8	10.3	10.3	10.3	7.8
87.5°	5.2	7.8	7.8	7.8	5.2	2.6	5.2	7.8	7.8	12.9	10.3
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):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	4825.1	4825.1	4825.1	4825.1	4825.1	4825.1	4825.1	4825.1	4825.1	4825.1	4825.1
2.5°	4832.9	4835.5	4835.5	4832.9	4832.9	4827.7	4838.0	4830.3	4832.9	4843.2	4835.5
5°	4838.0	4840.6	4840.6	4838.0	4838.0	4838.0	4840.6	4840.6	4838.0	4835.5	4840.6
7.5°	4848.4	4845.8	4845.8	4840.6	4840.6	4835.5	4840.6	4832.9	4838.0	4832.9	4840.6
10°	4835.5	4838.0	4835.5	4832.9	4832.9	4830.3	4830.3	4822.5	4825.1	4817.3	4822.5
12.5°	4827.7	4825.1	4825.1	4819.9	4814.8	4809.6	4807.0	4799.2	4799.2	4781.0	4788.8
15°	4807.0	4809.6	4801.8	4791.4	4786.2	4773.3	4768.1	4757.7	4747.4	4734.5	4737.1
17.5°	4788.8	4781.0	4770.7	4760.3	4739.6	4729.3	4718.9	4703.3	4698.1	4682.6	4677.5
20°	4734.5	4729.3	4716.3	4698.1	4685.2	4661.9	4651.6	4636.0	4623.1	4607.5	4599.7
22.5°	4664.5	4659.3	4643.8	4625.7	4604.9	4594.6	4584.2	4555.7	4542.8	4527.2	4524.6
25°	4576.5	4568.7	4553.2	4532.4	4522.0	4493.6	4483.2	4462.5	4457.3	4441.7	4439.2
27.5°	4441.7	4431.4	4413.3	4387.4	4369.2	4351.1	4340.8	4325.2	4320.1	4304.5	4301.9
30°	4239.8	4226.8	4190.5	4180.2	4149.1	4131.0	4131.0	4110.2	4112.8	4102.5	4102.5
32.5°	3921.2	3900.5	3872.0	3851.2	3830.5	3820.2	3820.2	3812.4	3817.6	3817.6	3822.8
35°	3499.0	3470.6	3455.0	3442.1	3442.1	3452.4	3483.5	3491.3	3506.8	3519.7	3530.1
37.5°	2957.7	2955.2	2973.3	2988.8	3027.7	3071.7	3126.1	3172.7	3216.7	3247.8	3278.9
40°	2372.4	2437.2	2488.9	2561.5	2621.0	2706.5	2804.9	2885.2	2960.3	3014.7	3071.7
42.5°	1851.8	1934.7	2043.5	2149.6	2255.9	2372.4	2501.9	2613.3	2711.7	2786.8	2846.4
45°	1442.6	1556.5	1688.7	1823.3	1960.6	2105.7	2240.3	2354.3	2457.9	2535.6	2595.1
47.5°	1162.9	1287.2	1437.4	1585.1	1740.4	1893.2	2043.5	2141.9	2227.3	2289.5	2343.9
50°	960.8	1093.0	1251.0	1419.3	1574.7	1727.5	1857.0	1952.8	2022.8	2077.1	2110.8
52.5°	802.9	942.7	1111.1	1279.4	1434.8	1574.7	1691.3	1763.8	1820.7	1859.6	1890.6
55°	663.0	797.7	955.7	1113.7	1266.5	1398.6	1494.4	1548.8	1592.8	1616.1	1634.2
57.5°	541.3	665.6	810.7	955.7	1087.8	1196.6	1271.7	1326.1	1346.8	1364.9	1362.3
60°	424.8	541.3	673.4	797.7	911.7	999.7	1054.1	1085.2	1100.7	1108.5	1103.3
62.5°	334.1	440.3	541.3	650.1	733.0	808.1	859.9	859.9	867.6	870.2	878.0
65°	248.6	328.9	417.0	497.3	564.6	613.8	642.3	650.1	660.5	657.9	652.7
67.5°	183.9	243.5	308.2	367.7	414.4	445.4	466.2	484.4	481.8	476.6	474.0
70°	126.9	165.8	222.8	259.0	292.7	323.8	328.9	331.5	334.1	336.7	331.5
72.5°	88.1	116.5	147.7	178.7	199.4	212.4	225.3	227.9	227.9	227.9	225.3
75°	44.0	59.6	88.1	101.0	119.1	124.3	134.7	134.7	142.5	132.1	129.5
77.5°	38.8	46.6	62.2	72.5	80.3	88.1	90.6	98.4	95.8	90.6	93.2
80°	23.3	28.5	38.8	44.0	54.4	57.0	59.6	62.2	59.6	62.2	62.2
82.5°	18.1	20.7	25.9	25.9	33.7	33.7	36.2	36.2	38.8	38.8	38.8
85°	10.3	18.1	15.5	31.1	20.7	20.7	25.9	31.1	25.9	25.9	31.1
87.5°	10.3	10.3	7.8	10.3	10.3	10.3	12.9	15.5	15.5	18.1	15.5
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: P249202

CATALOG NUMBER: LSR8B90D010 EC8B90830 8LBDW0WMH

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	4825.1	4825.1	4825.1	4825.1
2.5°	4832.9	4838.0	4830.3	4827.7
5°	4840.6	4840.6	4835.5	4835.5
7.5°	4840.6	4840.6	4832.9	4827.7
10°	4819.9	4819.9	4812.2	4807.0
12.5°	4781.0	4781.0	4778.4	4770.7
15°	4731.9	4731.9	4721.5	4713.7
17.5°	4664.5	4669.7	4656.8	4656.8
20°	4592.0	4589.4	4579.1	4573.9
22.5°	4516.9	4511.7	4509.1	4493.6
25°	4436.6	4431.4	4423.6	4415.9
27.5°	4299.3	4296.7	4289.0	4278.6
30°	4089.5	4086.9	4076.6	4076.6
32.5°	3817.6	3815.0	3804.7	3807.3
35°	3535.3	3545.7	3540.5	3530.1
37.5°	3299.6	3307.4	3312.6	3307.4
40°	3102.8	3126.1	3128.7	3133.9
42.5°	2893.0	2924.0	2934.4	2939.6
45°	2641.7	2670.2	2693.6	2688.4
47.5°	2385.3	2406.0	2426.8	2411.2
50°	2139.3	2152.2	2160.0	2160.0
52.5°	1906.2	1906.2	1903.6	1906.2
55°	1639.4	1639.4	1629.1	1634.2
57.5°	1359.7	1364.9	1357.1	1344.2
60°	1100.7	1087.8	1082.6	1074.9
62.5°	857.3	857.3	839.2	862.4
65°	642.3	634.5	626.8	624.2
67.5°	466.2	463.6	455.8	453.2
70°	328.9	318.6	316.0	310.8
72.5°	220.2	220.2	215.0	215.0
75°	134.7	121.7	119.1	121.7
77.5°	93.2	90.6	90.6	88.1
80°	62.2	59.6	64.8	57.0
82.5°	38.8	41.4	38.8	41.4
85°	25.9	31.1	28.5	28.5
87.5°	15.5	15.5	15.5	15.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)