

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: P249166

Luminaire Tested: **LSR8B90D010 EC8B90950 8LBDW0H**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249166
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 EC8B90950 8LBDW0H
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
90 CRI 5000 CCT WITH SEMI-SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8815.0 lumens
Efficiency: N/A
Efficacy: 102.4 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

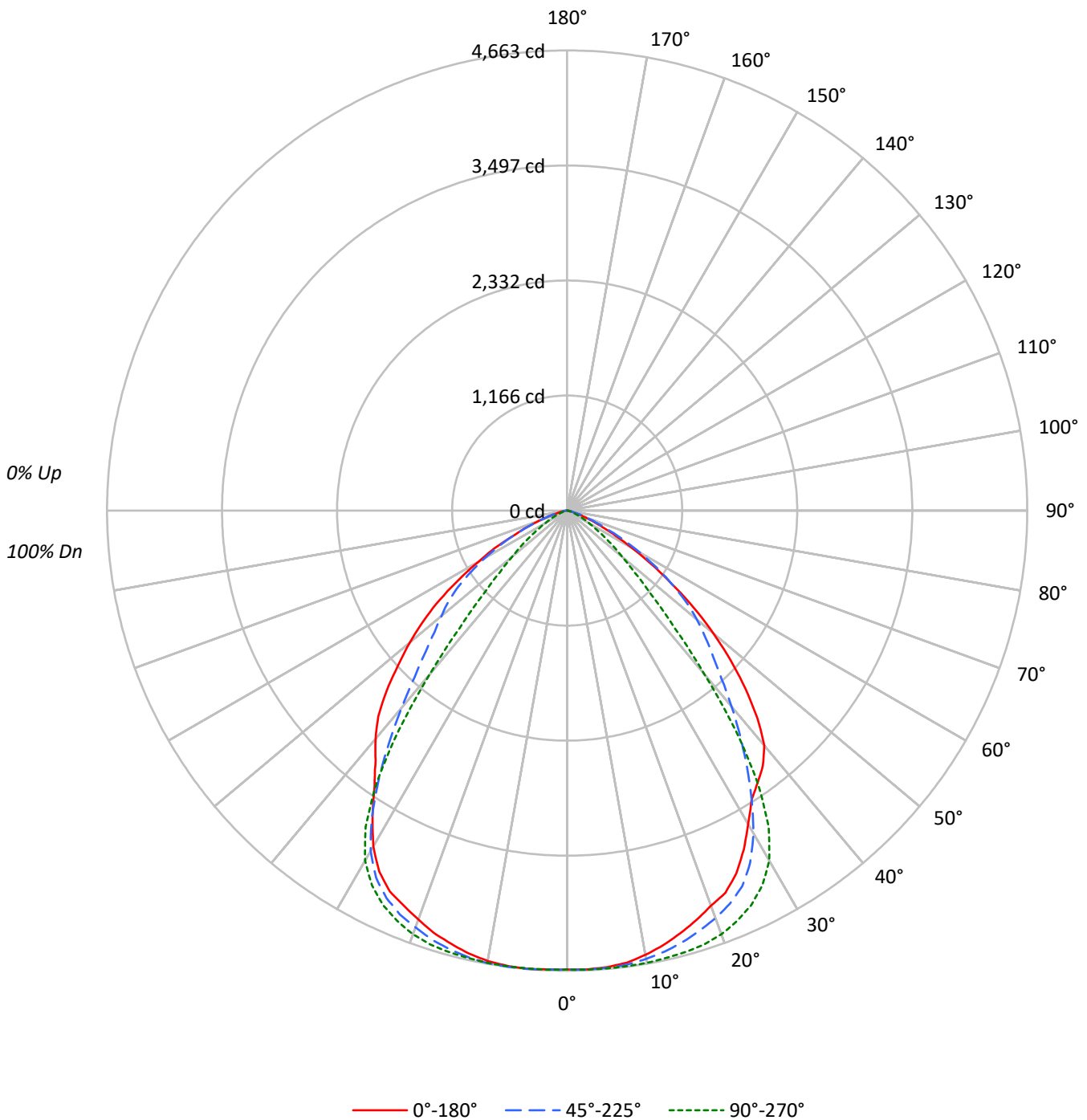
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	143420	143420	143420
5°	143735	144122	144277
10°	143130	145710	145084
15°	141542	147841	145050
20°	139842	149920	144676
25°	138029	150091	144824
30°	130584	145870	139917
35°	126684	126778	128096
40°	125113	87226	121599
45°	111482	52366	113009
50°	92698	34852	99884
55°	69524	24026	84690
60°	47112	16010	63899
65°	28420	10383	43896
70°	15760	5626	27012
75°	7137	2383	13975
80°	6198	2664	9749
85°	7076	3538	9730



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	443.9	5.0
10°-20°	1289.1	14.6
20°-30°	1956.5	22.2
30°-40°	2055.0	23.3
40°-50°	1540.7	17.5
50°-60°	988.5	11.2
60°-70°	422.9	4.8
70°-80°	99.9	1.1
80°-90°	18.6	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°	3689.5	41.9
0°-40°	5744.4	65.2
0°-60°	8273.6	93.9
0°-90°	8815.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8815.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4651	4651	4651	4651	4651	
5°	4644	4651	4656	4663	4661	441
15°	4434	4526	4631	4601	4544	1251
25°	4057	4199	4411	4331	4256	1853
35°	3365	3178	3368	3328	3403	2112
45°	2556	2090	1201	2030	2591	1958
55°	1293	1293	447	1348	1575	1173
65°	390	459	142	592	602	416
75°	60	70	20	120	117	87
85°	20	12	10	20	28	21
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°	4651.0	4651.0	4651.0	4651.0	4651.0	4651.0	4651.0	4651.0	4651.0	4651.0	4651.0
2.5°	4653.5	4658.5	4656.0	4656.0	4653.5	4656.0	4656.0	4661.0	4661.0	4656.0	4653.5
5°	4643.5	4648.5	4648.5	4643.5	4643.5	4656.0	4648.5	4653.5	4653.5	4651.0	4651.0
7.5°	4621.0	4621.0	4631.0	4623.5	4623.5	4631.0	4628.5	4633.5	4638.5	4641.0	4641.0
10°	4571.1	4576.1	4578.6	4578.6	4581.1	4588.5	4593.5	4603.6	4608.5	4613.5	4616.0
12.5°	4508.7	4516.2	4518.7	4516.2	4523.7	4533.6	4546.1	4558.6	4566.1	4576.1	4583.6
15°	4433.7	4433.7	4438.8	4446.3	4451.3	4466.2	4478.7	4493.7	4513.6	4526.2	4538.6
17.5°	4351.4	4356.4	4363.9	4363.9	4373.9	4398.8	4406.3	4428.8	4451.3	4463.7	4488.7
20°	4261.5	4266.5	4274.0	4279.0	4291.5	4311.5	4326.4	4346.4	4371.4	4393.9	4418.8
22.5°	4191.6	4181.6	4186.6	4191.6	4204.1	4221.6	4239.1	4264.0	4289.0	4311.5	4336.4
25°	4056.8	4059.3	4066.8	4071.8	4086.8	4101.7	4121.7	4151.7	4174.1	4199.1	4226.5
27.5°	3874.6	3877.1	3889.5	3889.5	3902.0	3927.0	3939.4	3964.4	3994.4	4019.3	4051.8
30°	3667.4	3672.3	3672.3	3682.3	3689.8	3702.3	3714.8	3739.8	3754.7	3777.2	3822.2
32.5°	3477.6	3482.6	3480.1	3477.6	3470.1	3467.6	3465.1	3470.1	3475.1	3482.6	3500.1
35°	3365.3	3352.8	3342.8	3325.4	3305.4	3280.4	3257.9	3228.0	3200.5	3178.0	3153.1
37.5°	3257.9	3255.4	3240.4	3215.5	3175.5	3130.6	3078.2	3013.3	2948.3	2878.5	2811.1
40°	3108.1	3100.6	3088.2	3053.2	3008.3	2953.3	2883.5	2803.6	2698.7	2591.4	2481.5
42.5°	2853.5	2856.0	2841.0	2813.5	2771.1	2718.7	2646.3	2558.9	2446.6	2319.2	2177.0
45°	2556.4	2556.4	2551.4	2528.9	2499.0	2456.5	2401.6	2329.2	2219.4	2089.5	1937.3
47.5°	2246.8	2249.3	2241.8	2236.9	2224.4	2196.9	2157.0	2102.1	2024.7	1899.8	1747.5
50°	1932.3	1932.3	1944.8	1942.3	1942.3	1932.3	1914.8	1882.3	1815.0	1715.1	1572.8
52.5°	1617.7	1622.7	1630.2	1640.2	1652.7	1672.6	1652.7	1637.7	1595.2	1517.8	1395.6
55°	1293.2	1298.2	1310.6	1328.1	1343.1	1363.1	1368.1	1368.1	1345.6	1293.2	1200.8
57.5°	1016.1	1008.6	1018.6	1033.6	1053.5	1073.5	1088.5	1105.9	1103.4	1068.5	993.6
60°	763.9	766.4	773.9	788.9	803.9	821.4	841.3	856.3	863.8	846.3	798.9
62.5°	556.7	556.7	566.7	581.7	589.2	614.2	626.6	634.1	641.6	639.1	609.1
65°	389.5	394.4	399.4	406.9	414.4	429.4	436.9	451.8	456.9	459.4	436.9
67.5°	274.6	267.1	272.1	277.1	284.6	294.6	309.6	309.6	317.0	317.0	302.1
70°	174.8	174.8	177.3	184.7	189.7	192.2	197.2	202.2	209.7	207.2	207.2
72.5°	117.3	114.8	117.3	119.8	122.4	129.8	129.8	132.3	137.3	139.8	129.8
75°	59.9	62.4	67.4	64.9	72.4	67.4	69.9	77.4	74.9	69.9	69.9
77.5°	49.9	49.9	49.9	47.5	52.4	52.4	49.9	54.9	52.4	52.4	49.9
80°	34.9	37.4	34.9	32.4	34.9	32.4	32.4	32.4	32.4	32.4	29.9
82.5°	27.5	22.5	25.0	22.5	25.0	25.0	22.5	20.0	20.0	22.5	20.0
85°	20.0	15.0	17.5	17.5	15.0	15.0	15.0	15.0	15.0	12.5	12.5
87.5°	12.5	7.5	7.5	7.5	10.0	10.0	10.0	7.5	10.0	10.0	5.0
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°	4651.0	4651.0	4651.0	4651.0	4651.0	4651.0	4651.0	4651.0	4651.0	4651.0	4651.0
2.5°	4658.5	4656.0	4661.0	4658.5	4658.5	4656.0	4658.5	4656.0	4661.0	4651.0	4653.5
5°	4658.5	4653.5	4656.0	4658.5	4661.0	4656.0	4656.0	4656.0	4661.0	4656.0	4658.5
7.5°	4648.5	4646.0	4653.5	4658.5	4656.0	4653.5	4658.5	4656.0	4661.0	4658.5	4663.4
10°	4628.5	4631.0	4636.0	4643.5	4646.0	4648.5	4653.5	4653.5	4661.0	4651.0	4656.0
12.5°	4598.6	4608.5	4621.0	4626.0	4636.0	4636.0	4641.0	4643.5	4648.5	4646.0	4653.5
15°	4561.1	4573.6	4588.5	4601.1	4613.5	4621.0	4628.5	4631.0	4638.5	4631.0	4633.5
17.5°	4516.2	4531.1	4553.6	4568.6	4588.5	4596.1	4606.0	4611.0	4618.5	4613.5	4616.0
20°	4453.7	4471.3	4496.2	4518.7	4531.1	4548.6	4561.1	4568.6	4573.6	4568.6	4571.1
22.5°	4366.4	4391.4	4423.8	4441.3	4466.2	4481.2	4483.7	4501.2	4513.6	4501.2	4506.2
25°	4264.0	4289.0	4314.0	4351.4	4373.9	4391.4	4408.8	4411.3	4423.8	4421.3	4418.8
27.5°	4094.2	4126.7	4169.1	4199.1	4229.1	4256.5	4276.5	4281.5	4294.0	4289.0	4291.5
30°	3862.1	3897.1	3937.0	3984.4	4026.9	4054.3	4079.3	4096.7	4109.2	4101.7	4099.2
32.5°	3532.6	3567.5	3610.0	3657.4	3707.3	3747.2	3777.2	3799.7	3814.6	3809.6	3797.2
35°	3155.6	3165.6	3193.0	3230.5	3272.9	3315.3	3342.8	3367.8	3385.2	3390.2	3390.2
37.5°	2768.6	2736.2	2716.2	2716.2	2741.1	2758.6	2783.6	2798.6	2826.0	2836.0	2843.5
40°	2394.1	2319.2	2249.3	2196.9	2162.0	2159.5	2159.5	2166.9	2191.9	2224.4	2254.3
42.5°	2059.6	1939.8	1832.4	1735.1	1665.2	1625.2	1607.8	1610.3	1630.2	1660.2	1710.1
45°	1792.5	1642.7	1507.9	1390.5	1295.7	1233.3	1203.3	1200.8	1215.8	1250.7	1305.7
47.5°	1585.3	1425.5	1273.2	1138.4	1036.1	968.6	933.7	923.7	933.7	966.1	1031.1
50°	1413.0	1248.3	1091.0	951.2	841.3	771.4	738.9	726.5	738.9	766.4	831.3
52.5°	1253.2	1083.5	936.2	801.4	684.0	624.1	589.2	581.7	589.2	621.6	674.1
55°	1068.5	923.7	778.9	644.1	541.8	481.8	454.4	446.9	454.4	484.3	539.3
57.5°	886.3	761.4	634.1	511.8	424.4	371.9	347.0	337.0	354.5	374.5	439.4
60°	716.5	616.7	509.3	401.9	329.6	282.1	262.1	259.6	264.6	289.6	334.5
62.5°	561.7	479.3	394.4	307.1	247.2	227.2	202.2	199.7	204.7	219.7	254.7
65°	404.4	352.0	287.1	224.7	177.3	149.8	139.8	142.3	147.3	157.3	189.7
67.5°	282.1	244.6	199.7	157.3	122.4	109.8	99.9	97.4	99.9	117.3	134.8
70°	189.7	167.3	134.8	119.8	84.9	67.4	69.9	62.4	72.4	72.4	87.4
72.5°	124.8	109.8	89.9	69.9	59.9	47.5	47.5	45.0	49.9	52.4	64.9
75°	64.9	49.9	49.9	34.9	25.0	12.5	22.5	20.0	17.5	20.0	25.0
77.5°	45.0	37.4	34.9	27.5	25.0	20.0	20.0	20.0	20.0	22.5	25.0
80°	27.5	27.5	20.0	17.5	15.0	12.5	15.0	15.0	15.0	15.0	17.5
82.5°	17.5	15.0	15.0	12.5	12.5	10.0	10.0	10.0	10.0	10.0	15.0
85°	15.0	10.0	10.0	7.5	10.0	17.5	7.5	10.0	10.0	10.0	7.5
87.5°	5.0	7.5	7.5	7.5	5.0	2.5	5.0	7.5	7.5	12.5	10.0
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	4651.0	4651.0	4651.0	4651.0	4651.0	4651.0	4651.0	4651.0	4651.0	4651.0	4651.0
2.5°	4658.5	4661.0	4661.0	4658.5	4658.5	4653.5	4663.4	4656.0	4658.5	4668.4	4661.0
5°	4663.4	4665.9	4665.9	4663.4	4663.4	4663.4	4665.9	4665.9	4663.4	4661.0	4665.9
7.5°	4673.4	4670.9	4670.9	4665.9	4665.9	4661.0	4665.9	4658.5	4663.4	4658.5	4665.9
10°	4661.0	4663.4	4661.0	4658.5	4658.5	4656.0	4656.0	4648.5	4651.0	4643.5	4648.5
12.5°	4653.5	4651.0	4651.0	4646.0	4641.0	4636.0	4633.5	4626.0	4626.0	4608.5	4616.0
15°	4633.5	4636.0	4628.5	4618.5	4613.5	4601.1	4596.1	4586.0	4576.1	4563.6	4566.1
17.5°	4616.0	4608.5	4598.6	4588.5	4568.6	4558.6	4548.6	4533.6	4528.6	4513.6	4508.7
20°	4563.6	4558.6	4546.1	4528.6	4516.2	4493.7	4483.7	4468.7	4456.2	4441.3	4433.7
22.5°	4496.2	4491.2	4476.2	4458.7	4438.8	4428.8	4418.8	4391.4	4378.8	4363.9	4361.4
25°	4411.3	4403.8	4388.9	4368.9	4358.9	4331.4	4321.4	4301.4	4296.5	4281.5	4279.0
27.5°	4281.5	4271.5	4254.0	4229.1	4211.6	4194.1	4184.2	4169.1	4164.2	4149.2	4146.7
30°	4086.8	4074.3	4039.3	4029.4	3999.4	3981.9	3981.9	3961.9	3964.4	3954.5	3954.5
32.5°	3779.7	3759.7	3732.2	3712.3	3692.3	3682.3	3682.3	3674.8	3679.8	3679.8	3684.8
35°	3372.8	3345.3	3330.3	3317.8	3317.8	3327.8	3357.8	3365.3	3380.3	3392.7	3402.8
37.5°	2851.0	2848.5	2866.0	2881.0	2918.4	2960.9	3013.3	3058.2	3100.6	3130.6	3160.5
40°	2286.8	2349.2	2399.1	2469.1	2526.4	2608.8	2703.7	2781.1	2853.5	2905.9	2960.9
42.5°	1785.0	1864.9	1969.8	2072.1	2174.5	2286.8	2411.6	2519.0	2613.8	2686.2	2743.6
45°	1390.5	1500.4	1627.7	1757.5	1889.9	2029.7	2159.5	2269.3	2369.2	2444.1	2501.5
47.5°	1120.9	1240.8	1385.5	1527.9	1677.6	1824.9	1969.8	2064.6	2147.0	2206.9	2259.4
50°	926.2	1053.5	1205.8	1368.1	1517.8	1665.2	1790.0	1882.3	1949.8	2002.2	2034.6
52.5°	773.9	908.7	1071.0	1233.3	1383.0	1517.8	1630.2	1700.1	1755.0	1792.5	1822.4
55°	639.1	768.9	921.2	1073.5	1220.8	1348.1	1440.5	1492.9	1535.3	1557.8	1575.3
57.5°	521.8	641.6	781.4	921.2	1048.5	1153.4	1225.8	1278.2	1298.2	1315.7	1313.1
60°	409.5	521.8	649.1	768.9	878.8	963.6	1016.1	1046.0	1061.0	1068.5	1063.5
62.5°	322.0	424.4	521.8	626.6	706.5	778.9	828.9	828.9	836.3	838.8	846.3
65°	239.6	317.0	401.9	479.3	544.2	591.7	619.2	626.6	636.6	634.1	629.1
67.5°	177.3	234.7	297.1	354.5	399.4	429.4	449.3	466.9	464.4	459.4	456.9
70°	122.4	159.8	214.7	249.7	282.1	312.1	317.0	319.5	322.0	324.5	319.5
72.5°	84.9	112.3	142.3	172.3	192.2	204.7	217.2	219.7	219.7	219.7	217.2
75°	42.5	57.4	84.9	97.4	114.8	119.8	129.8	129.8	137.3	127.3	124.8
77.5°	37.4	45.0	59.9	69.9	77.4	84.9	87.4	94.9	92.4	87.4	89.9
80°	22.5	27.5	37.4	42.5	52.4	54.9	57.4	59.9	57.4	59.9	59.9
82.5°	17.5	20.0	25.0	25.0	32.4	32.4	34.9	34.9	37.4	37.4	37.4
85°	10.0	17.5	15.0	29.9	20.0	20.0	25.0	29.9	25.0	25.0	29.9
87.5°	10.0	10.0	7.5	10.0	10.0	10.0	12.5	15.0	15.0	17.5	15.0
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: P249166

CATALOG NUMBER: LSR8B90D010 EC8B90950 8LBDW0H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4651.0	4651.0	4651.0	4651.0
2.5°	4658.5	4663.4	4656.0	4653.5
5°	4665.9	4665.9	4661.0	4661.0
7.5°	4665.9	4665.9	4658.5	4653.5
10°	4646.0	4646.0	4638.5	4633.5
12.5°	4608.5	4608.5	4606.0	4598.6
15°	4561.1	4561.1	4551.1	4543.6
17.5°	4496.2	4501.2	4488.7	4488.7
20°	4426.3	4423.8	4413.8	4408.8
22.5°	4353.9	4348.9	4346.4	4331.4
25°	4276.5	4271.5	4264.0	4256.5
27.5°	4144.2	4141.7	4134.2	4124.2
30°	3942.0	3939.4	3929.5	3929.5
32.5°	3679.8	3677.3	3667.4	3669.9
35°	3407.7	3417.7	3412.7	3402.8
37.5°	3180.5	3188.0	3193.0	3188.0
40°	2990.8	3013.3	3015.8	3020.8
42.5°	2788.6	2818.5	2828.5	2833.5
45°	2546.4	2573.9	2596.4	2591.4
47.5°	2299.2	2319.2	2339.2	2324.2
50°	2062.1	2074.6	2082.1	2082.1
52.5°	1837.4	1837.4	1834.9	1837.4
55°	1580.3	1580.3	1570.3	1575.3
57.5°	1310.6	1315.7	1308.1	1295.7
60°	1061.0	1048.5	1043.5	1036.1
62.5°	826.4	826.4	808.9	831.3
65°	619.2	611.6	604.1	601.6
67.5°	449.3	446.9	439.4	436.9
70°	317.0	307.1	304.6	299.6
72.5°	212.2	212.2	207.2	207.2
75°	129.8	117.3	114.8	117.3
77.5°	89.9	87.4	87.4	84.9
80°	59.9	57.4	62.4	54.9
82.5°	37.4	39.9	37.4	39.9
85°	25.0	29.9	27.5	27.5
87.5°	15.0	15.0	15.0	15.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)