

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: P248500

Luminaire Tested: **LSR8B90D010 EC8B90935 8LBDW0WH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P248500  
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 EC8B90935 8LBDW0WH  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
90 CRI 3500 CCT WITH WHEAT TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8216.0 lumens  
Efficiency: N/A  
Efficacy: 95.4 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

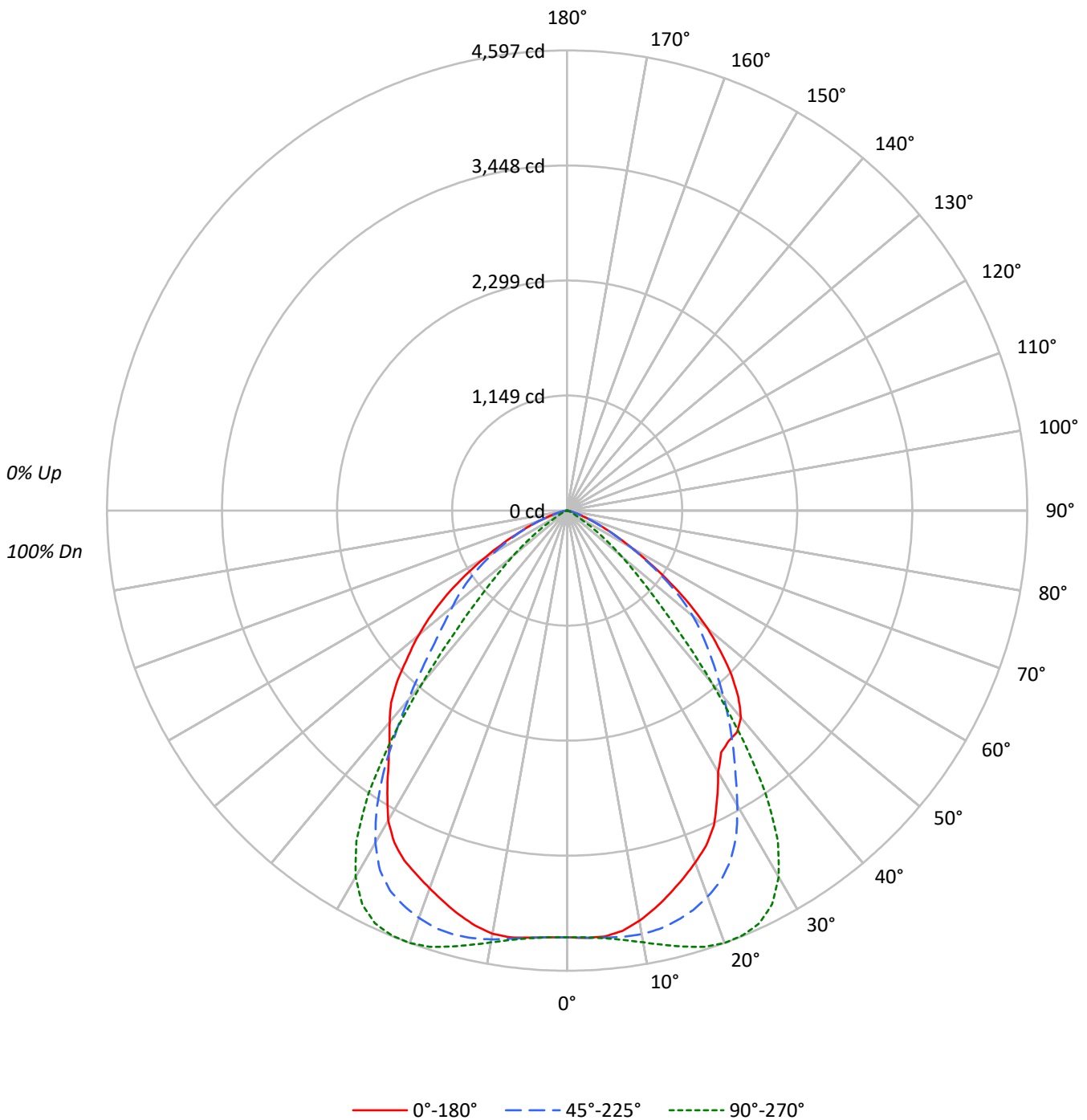
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	88	82	76	94	87	81	76	84	79	74	81	77	73	79	75	72	70
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62
5	84	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56
6	78	66	59	53	76	66	58	53	64	57	53	62	57	52	61	56	52	50
7	73	61	53	48	71	60	53	48	59	52	48	57	52	47	56	51	47	45
8	68	56	49	44	67	56	48	43	54	48	43	53	47	43	52	47	43	41
9	64	52	45	40	63	51	44	40	50	44	39	49	44	39	48	43	39	38
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	131431	131431	131431
5°	132211	132703	132561
10°	130271	137143	134451
15°	126461	143939	133395
20°	122792	150852	131773
25°	118077	154714	131163
30°	107457	150474	127273
35°	105855	130384	117100
40°	108734	90430	111008
45°	101221	54655	104378
50°	87800	33754	93010
55°	67379	17634	78933
60°	45903	7117	59576
65°	28558	3634	41101
70°	15498	2245	25091
75°	8090	1072	14821
80°	3623	1208	8027
85°	2406	814	7218



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	409.9	5.0
10°-20°	1214.2	14.8
20°-30°	1852.4	22.5
30°-40°	1933.1	23.5
40°-50°	1452.0	17.7
50°-60°	893.4	10.9
60°-70°	363.6	4.4
70°-80°	85.7	1.0
80°-90°	11.8	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°	3476.6	42.3
0°-40°	5409.6	65.8
0°-60°	7755.0	94.4
0°-90°	8216.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8216.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	4262	4262	4262	4262	4262	
5°	4271	4282	4287	4282	4282	404
15°	3961	4240	4509	4384	4178	1116
25°	3470	3860	4547	4188	3855	1578
35°	2812	2891	3464	3201	3111	1776
45°	2321	2009	1253	1871	2394	1771
55°	1253	1190	328	1190	1468	1127
65°	391	396	50	532	563	408
75°	68	68	9	120	124	82
85°	7	7	2	16	20	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°	4262.2	4262.2	4262.2	4262.2	4262.2	4262.2	4262.2	4262.2	4262.2	4262.2	4262.2
2.5°	4273.5	4266.7	4273.5	4273.5	4275.8	4271.2	4273.5	4275.8	4271.2	4271.2	4271.2
5°	4271.2	4266.7	4271.2	4269.0	4273.5	4273.5	4278.1	4278.1	4282.5	4282.5	4289.3
7.5°	4235.0	4226.0	4235.0	4241.9	4246.3	4255.4	4266.7	4275.8	4284.8	4293.9	4305.2
10°	4160.4	4160.4	4167.2	4180.7	4194.3	4210.1	4230.5	4253.1	4275.8	4296.1	4316.5
12.5°	4067.7	4060.8	4074.4	4092.5	4112.9	4137.8	4169.5	4203.4	4239.6	4280.3	4312.0
15°	3961.3	3954.5	3970.3	3988.4	4013.3	4049.6	4088.0	4133.2	4185.3	4239.6	4291.6
17.5°	3852.7	3850.4	3866.3	3891.2	3911.6	3950.0	3999.8	4054.0	4112.9	4185.3	4253.1
20°	3741.9	3739.6	3755.4	3775.8	3802.9	3839.1	3888.9	3952.2	4022.4	4103.9	4183.0
22.5°	3626.5	3628.7	3642.3	3664.9	3687.6	3726.0	3778.0	3841.4	3918.3	4006.5	4094.8
25°	3470.4	3459.1	3477.2	3499.8	3538.2	3569.9	3619.7	3687.6	3766.7	3859.5	3963.6
27.5°	3244.1	3241.9	3257.8	3278.1	3312.0	3350.5	3404.8	3474.9	3558.6	3660.4	3762.2
30°	3017.9	3022.4	3029.2	3049.6	3072.2	3110.7	3165.0	3223.8	3303.0	3400.2	3508.8
32.5°	2864.1	2864.1	2873.1	2886.7	2902.5	2922.9	2961.4	3004.3	3065.4	3133.3	3212.5
35°	2812.0	2803.0	2812.0	2814.3	2816.6	2821.1	2827.9	2841.5	2861.8	2891.2	2920.6
37.5°	2789.4	2782.6	2782.6	2773.6	2762.3	2748.7	2730.6	2710.2	2687.7	2658.2	2635.6
40°	2701.2	2696.7	2692.1	2683.1	2658.2	2631.1	2601.6	2554.1	2502.1	2429.7	2357.3
42.5°	2531.5	2527.0	2524.7	2506.6	2484.0	2452.3	2418.4	2368.6	2303.0	2210.3	2106.2
45°	2321.1	2312.1	2305.3	2289.5	2273.6	2246.5	2214.8	2169.5	2103.9	2008.9	1884.5
47.5°	2076.8	2072.3	2070.0	2063.2	2047.4	2031.5	2011.2	1975.0	1916.2	1825.7	1696.7
50°	1830.2	1821.2	1825.7	1823.4	1816.6	1805.3	1791.7	1766.9	1721.6	1640.2	1522.5
52.5°	1547.4	1547.4	1545.2	1551.9	1554.2	1551.9	1554.2	1527.1	1488.6	1427.5	1328.0
55°	1253.3	1253.3	1260.1	1269.2	1278.2	1280.5	1278.2	1266.9	1239.7	1190.0	1101.7
57.5°	977.3	972.8	986.4	999.9	1009.0	1018.0	1011.2	1002.2	986.4	945.6	877.8
60°	744.3	744.3	753.3	762.4	771.4	780.5	778.2	776.0	762.4	735.2	681.0
62.5°	547.5	549.7	549.7	556.5	565.6	574.6	581.4	574.6	567.8	549.7	513.5
65°	391.4	389.1	391.4	398.2	405.0	414.0	418.5	416.3	409.5	395.9	368.8
67.5°	262.4	260.2	269.2	271.5	276.0	285.1	282.8	285.1	282.8	271.5	248.9
70°	171.9	167.4	171.9	169.7	176.5	178.7	183.2	185.5	183.2	176.5	169.7
72.5°	106.3	104.1	106.3	108.6	110.9	113.1	117.6	117.6	115.4	110.9	101.8
75°	67.9	61.1	63.3	58.8	63.3	63.3	67.9	70.1	67.9	67.9	63.3
77.5°	40.7	40.7	40.7	40.7	40.7	40.7	40.7	43.0	45.2	40.7	38.5
80°	20.4	20.4	22.6	22.6	22.6	24.9	22.6	22.6	22.6	24.9	18.1
82.5°	15.8	13.6	13.6	13.6	15.8	13.6	13.6	13.6	13.6	13.6	13.6
85°	6.8	9.0	6.8	4.5	6.8	6.8	9.0	6.8	6.8	6.8	9.0
87.5°	2.3	2.3	0.0	0.0	0.0	2.3	0.0	2.3	2.3	4.5	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°	4262.2	4262.2	4262.2	4262.2	4262.2	4262.2	4262.2	4262.2	4262.2	4262.2	4262.2
2.5°	4273.5	4269.0	4269.0	4266.7	4271.2	4266.7	4269.0	4266.7	4266.7	4271.2	4266.7
5°	4289.3	4291.6	4287.1	4284.8	4291.6	4291.6	4291.6	4287.1	4287.1	4289.3	4287.1
7.5°	4312.0	4316.5	4318.7	4321.0	4325.6	4327.8	4327.8	4325.6	4323.3	4330.1	4321.0
10°	4336.8	4343.7	4357.2	4364.0	4375.3	4375.3	4379.9	4379.9	4375.3	4379.9	4377.6
12.5°	4327.8	4368.5	4391.1	4407.0	4422.8	4436.4	4440.9	4443.2	4440.9	4450.0	4440.9
15°	4343.7	4377.6	4413.8	4440.9	4470.3	4486.1	4490.7	4508.8	4513.3	4515.6	4502.0
17.5°	4318.7	4379.9	4418.3	4459.0	4502.0	4531.4	4558.5	4569.9	4572.2	4576.6	4558.5
20°	4262.2	4330.1	4388.9	4447.7	4497.5	4542.7	4565.3	4597.0	4588.0	4606.1	4581.2
22.5°	4185.3	4262.2	4336.8	4413.8	4465.8	4520.1	4567.6	4590.2	4601.6	4601.6	4574.4
25°	4063.1	4153.6	4235.0	4314.2	4393.4	4459.0	4513.3	4547.2	4554.1	4551.8	4520.1
27.5°	3873.1	3970.3	4065.4	4155.9	4253.1	4330.1	4393.4	4434.1	4445.5	4445.5	4411.5
30°	3610.6	3714.7	3807.5	3916.0	4015.6	4101.6	4189.8	4226.0	4246.3	4246.3	4207.9
32.5°	3298.4	3386.7	3472.6	3579.0	3687.6	3784.8	3868.5	3918.3	3943.2	3940.9	3907.0
35°	2959.1	3002.1	3067.7	3146.9	3244.1	3334.6	3416.1	3463.6	3506.6	3504.3	3472.6
37.5°	2619.7	2608.4	2615.2	2644.6	2705.7	2769.1	2832.4	2877.7	2913.8	2929.7	2922.9
40°	2287.2	2228.4	2171.8	2151.5	2156.0	2178.6	2212.5	2246.5	2287.2	2307.6	2316.6
42.5°	1988.6	1889.0	1789.5	1714.8	1671.8	1658.3	1674.1	1685.4	1710.3	1739.7	1769.1
45°	1748.8	1615.3	1484.1	1368.7	1296.3	1253.3	1244.3	1253.3	1266.9	1296.3	1334.8
47.5°	1551.9	1395.8	1248.8	1119.8	1013.5	957.0	941.1	936.6	950.2	977.3	1029.3
50°	1377.7	1221.6	1058.8	909.4	798.6	735.2	712.6	703.6	719.4	739.8	787.3
52.5°	1187.7	1033.9	866.5	721.7	606.3	540.7	515.8	502.2	511.3	538.4	585.9
55°	981.8	839.3	687.7	538.4	427.6	366.5	337.1	328.0	337.1	366.5	414.0
57.5°	776.0	656.1	529.4	389.1	289.6	228.5	199.1	190.0	214.9	226.2	276.0
60°	606.3	509.0	400.4	285.1	199.1	151.6	122.2	115.4	126.7	147.0	187.8
62.5°	454.7	393.6	307.7	203.6	147.0	97.3	81.4	74.7	81.4	97.3	129.0
65°	330.3	282.8	214.9	149.3	99.5	72.4	54.3	49.8	56.6	67.9	95.0
67.5°	226.2	190.0	149.3	104.1	67.9	45.2	38.5	38.5	40.7	49.8	70.1
70°	147.0	124.4	95.0	67.9	45.2	33.9	29.4	24.9	29.4	36.2	47.5
72.5°	92.8	79.2	61.1	47.5	33.9	24.9	20.4	18.1	22.6	27.1	36.2
75°	56.6	43.0	31.7	24.9	18.1	18.1	18.1	9.0	11.3	18.1	22.6
77.5°	33.9	29.4	24.9	20.4	15.8	9.0	9.0	9.0	11.3	13.6	20.4
80°	18.1	15.8	11.3	11.3	9.0	6.8	9.0	6.8	4.5	11.3	13.6
82.5°	11.3	9.0	9.0	9.0	11.3	4.5	6.8	4.5	6.8	9.0	6.8
85°	6.8	6.8	6.8	4.5	11.3	4.5	4.5	2.3	2.3	4.5	4.5
87.5°	0.0	2.3	2.3	0.0	2.3	0.0	2.3	2.3	2.3	2.3	2.3
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°	4262.2	4262.2	4262.2	4262.2	4262.2	4262.2	4262.2	4262.2	4262.2	4262.2	4262.2
2.5°	4269.0	4266.7	4269.0	4266.7	4266.7	4266.7	4269.0	4269.0	4266.7	4266.7	4271.2
5°	4287.1	4287.1	4287.1	4284.8	4282.5	4282.5	4287.1	4287.1	4280.3	4287.1	4287.1
7.5°	4325.6	4318.7	4325.6	4316.5	4312.0	4314.2	4316.5	4312.0	4307.5	4309.7	4309.7
10°	4375.3	4368.5	4368.5	4361.8	4354.9	4350.4	4345.9	4334.6	4323.3	4321.0	4312.0
12.5°	4434.1	4422.8	4416.1	4402.4	4391.1	4375.3	4361.8	4343.7	4321.0	4305.2	4289.3
15°	4492.9	4474.8	4459.0	4436.4	4411.5	4384.3	4354.9	4325.6	4289.3	4257.7	4230.5
17.5°	4540.4	4515.6	4486.1	4450.0	4413.8	4373.0	4330.1	4287.1	4235.0	4194.3	4162.6
20°	4556.3	4520.1	4481.7	4434.1	4386.6	4330.1	4275.8	4219.2	4160.4	4117.4	4081.2
22.5°	4536.0	4492.9	4445.5	4395.7	4332.3	4271.2	4207.9	4142.3	4090.2	4031.5	3997.5
25°	4479.4	4427.3	4375.3	4316.5	4255.4	4187.6	4119.7	4051.8	3988.4	3956.8	3913.8
27.5°	4364.0	4307.5	4250.9	4189.8	4119.7	4051.8	3981.7	3916.0	3861.8	3818.8	3793.9
30°	4160.4	4094.8	4029.2	3963.6	3902.5	3832.3	3766.7	3712.4	3658.1	3624.2	3599.3
32.5°	3848.2	3789.4	3723.8	3660.4	3603.9	3545.0	3490.7	3443.2	3404.8	3382.1	3364.0
35°	3427.4	3368.6	3318.8	3273.6	3226.0	3201.2	3167.2	3140.1	3124.2	3115.2	3112.9
37.5°	2898.0	2864.1	2848.2	2839.2	2830.1	2823.4	2827.9	2839.2	2848.2	2864.1	2882.2
40°	2332.4	2361.8	2370.9	2402.6	2432.0	2470.4	2513.4	2563.2	2603.9	2655.9	2692.1
42.5°	1816.6	1870.9	1934.3	2002.1	2074.5	2144.7	2230.6	2309.8	2382.2	2447.8	2504.4
45°	1395.8	1479.5	1574.6	1671.8	1769.1	1870.9	1975.0	2072.3	2158.2	2228.4	2287.2
47.5°	1088.2	1180.9	1303.1	1423.0	1540.6	1660.5	1775.9	1877.7	1950.1	2018.0	2070.0
50°	861.9	968.3	1101.7	1239.7	1368.7	1495.4	1617.5	1712.6	1785.0	1839.3	1877.7
52.5°	667.4	794.1	929.8	1074.6	1212.6	1350.6	1463.7	1551.9	1610.8	1658.3	1687.7
55°	497.7	622.1	766.9	916.2	1056.5	1190.0	1296.3	1373.2	1425.3	1452.4	1468.2
57.5°	359.7	472.8	617.6	766.9	893.6	1020.3	1106.3	1176.4	1205.8	1221.6	1228.4
60°	262.4	366.5	495.4	624.4	744.3	846.1	920.8	968.3	990.9	999.9	997.7
62.5°	192.3	282.8	393.6	502.2	599.5	683.2	742.0	773.7	785.0	789.5	782.8
65°	147.0	217.2	312.2	395.9	470.6	531.6	574.6	595.0	601.8	599.5	595.0
67.5°	108.6	162.9	233.0	296.4	350.7	398.2	420.8	438.9	443.4	436.6	429.8
70°	76.9	119.9	169.7	212.7	253.4	280.5	305.4	307.7	307.7	305.4	300.9
72.5°	54.3	83.7	115.4	144.8	169.7	190.0	199.1	205.9	203.6	201.3	196.8
75°	36.2	52.0	83.7	90.5	113.1	119.9	129.0	129.0	131.2	124.4	124.4
77.5°	22.6	36.2	49.8	58.8	67.9	76.9	81.4	81.4	83.7	81.4	81.4
80°	13.6	22.6	27.1	40.7	40.7	47.5	49.8	52.0	47.5	54.3	47.5
82.5°	9.0	13.6	20.4	20.4	24.9	29.4	29.4	31.7	31.7	29.4	29.4
85°	6.8	9.0	11.3	13.6	13.6	15.8	13.6	13.6	15.8	18.1	15.8
87.5°	2.3	4.5	2.3	4.5	4.5	9.0	6.8	6.8	6.8	9.0	9.0
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: P248500

CATALOG NUMBER: LSR8B90D010 EC8B90935 8LBDW0WH

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	4262.2	4262.2	4262.2	4262.2
2.5°	4266.7	4269.0	4266.7	4266.7
5°	4287.1	4284.8	4287.1	4282.5
7.5°	4302.9	4302.9	4300.6	4300.6
10°	4302.9	4293.9	4293.9	4293.9
12.5°	4269.0	4257.7	4250.9	4246.3
15°	4210.1	4189.8	4180.7	4178.5
17.5°	4133.2	4115.1	4103.9	4097.0
20°	4045.0	4026.9	4013.3	4015.6
22.5°	3968.1	3947.8	3938.7	3934.1
25°	3891.2	3866.3	3859.5	3855.0
27.5°	3766.7	3753.2	3746.4	3739.6
30°	3576.7	3569.9	3558.6	3574.4
32.5°	3357.3	3345.9	3336.9	3343.7
35°	3115.2	3108.4	3115.2	3110.7
37.5°	2893.5	2900.3	2909.3	2913.8
40°	2719.3	2744.2	2753.2	2757.7
42.5°	2545.1	2574.5	2592.6	2603.9
45°	2330.2	2359.6	2379.9	2393.5
47.5°	2108.5	2133.4	2153.7	2151.5
50°	1907.1	1920.7	1929.7	1938.8
52.5°	1703.5	1703.5	1705.8	1705.8
55°	1472.8	1468.2	1466.0	1468.2
57.5°	1219.4	1214.9	1212.6	1205.8
60°	988.6	975.1	966.0	966.0
62.5°	773.7	757.9	751.1	748.8
65°	581.4	579.1	565.6	563.3
67.5°	420.8	411.7	402.7	405.0
70°	296.4	282.8	282.8	278.3
72.5°	192.3	185.5	183.2	183.2
75°	119.9	119.9	115.4	124.4
77.5°	79.2	79.2	76.9	79.2
80°	47.5	47.5	47.5	45.2
82.5°	29.4	31.7	29.4	29.4
85°	15.8	18.1	13.6	20.4
87.5°	9.0	11.3	9.0	11.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)