

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: P249542

Luminaire Tested: **LSR8B70D010 EC8B70840 8LBDW0MW**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249542  
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: LSR8B70D010 EC8B70840 8LBDW0MW  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 4000 CCT WITH MATTE WHITE TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7497.0 lumens  
Efficiency: N/A  
Efficacy: 98.8 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

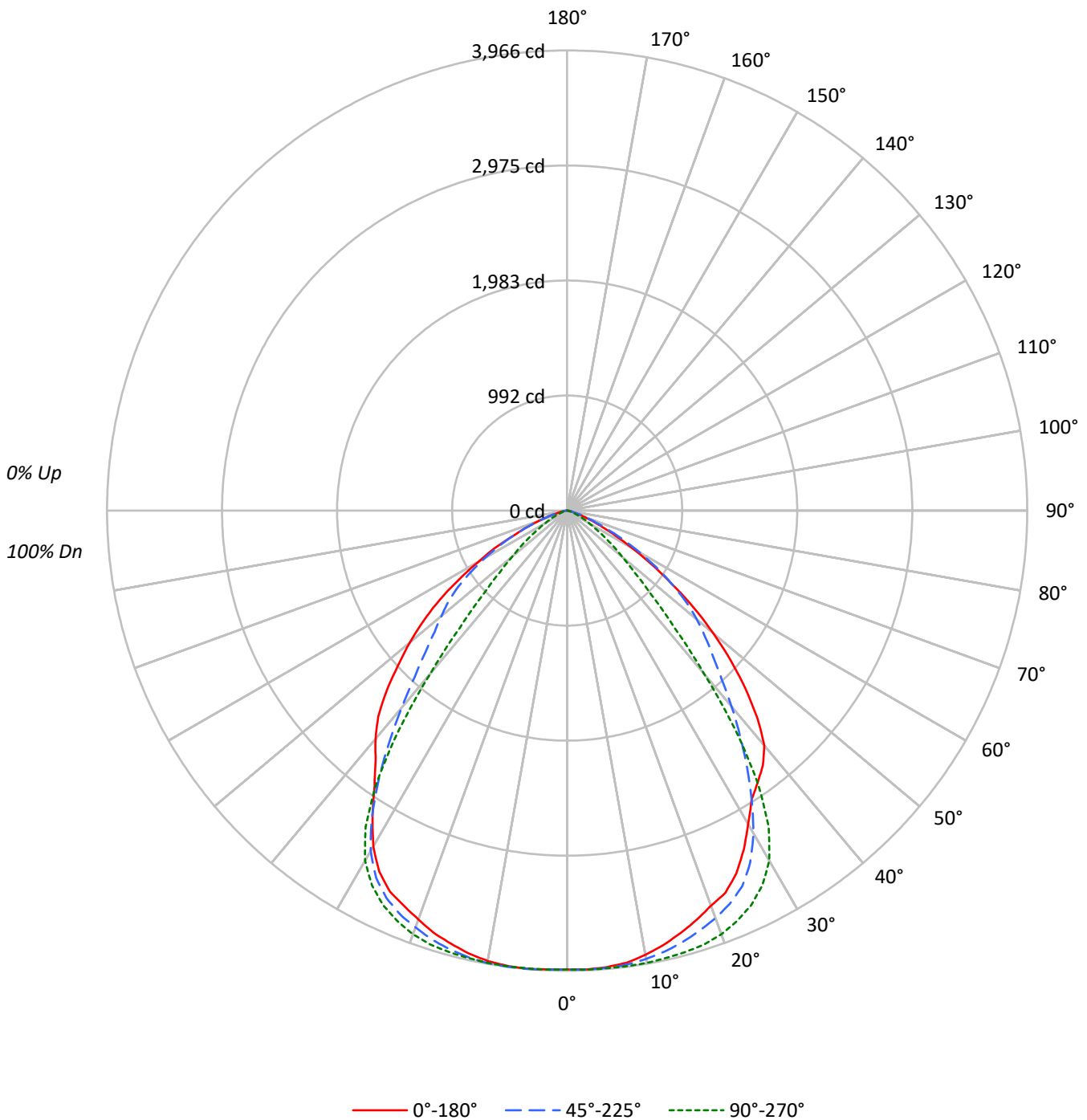
Input Watts (W): 75.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	121976	121976	121976
5°	122244	122572	122705
10°	121729	123924	123391
15°	120379	125736	123364
20°	118936	127504	123044
25°	117390	127652	123171
30°	111057	124061	118998
35°	107741	107820	108942
40°	106407	74184	103416
45°	94815	44538	96110
50°	78838	29642	84950
55°	59127	20435	72024
60°	40069	13617	54346
65°	24166	8829	37336
70°	13398	4787	22973
75°	6076	2025	11890
80°	5274	2255	8293
85°	6015	3007	8279



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	377.5	5.0
10°-20°	1096.3	14.6
20°-30°	1664.0	22.2
30°-40°	1747.7	23.3
40°-50°	1310.3	17.5
50°-60°	840.7	11.2
60°-70°	359.7	4.8
70°-80°	85.0	1.1
80°-90°	15.8	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°	3137.8	41.9
0°-40°	4885.5	65.2
0°-60°	7036.6	93.9
0°-90°	7497.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7497.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3956	3956	3956	3956	3956	
5°	3949	3956	3960	3966	3964	375
15°	3771	3849	3939	3913	3864	1064
25°	3450	3571	3752	3684	3620	1576
35°	2862	2703	2864	2830	2894	1796
45°	2174	1777	1021	1726	2204	1665
55°	1100	1100	380	1146	1340	998
65°	331	391	121	503	512	354
75°	51	59	17	102	100	74
85°	17	11	8	17	23	18
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°	3955.6	3955.6	3955.6	3955.6	3955.6	3955.6	3955.6	3955.6	3955.6	3955.6	3955.6
2.5°	3957.7	3962.0	3959.8	3959.8	3957.7	3959.8	3959.8	3964.1	3964.1	3959.8	3957.7
5°	3949.2	3953.4	3953.4	3949.2	3949.2	3959.8	3953.4	3957.7	3957.7	3955.6	3955.6
7.5°	3930.1	3930.1	3938.6	3932.2	3932.2	3938.6	3936.4	3940.7	3945.0	3947.1	3947.1
10°	3887.6	3891.9	3894.0	3894.0	3896.1	3902.5	3906.7	3915.2	3919.5	3923.7	3925.8
12.5°	3834.6	3840.9	3843.0	3840.9	3847.3	3855.8	3866.4	3877.0	3883.4	3891.9	3898.3
15°	3770.8	3770.8	3775.1	3781.5	3785.7	3798.5	3809.1	3821.8	3838.8	3849.4	3860.0
17.5°	3700.8	3705.1	3711.4	3711.4	3719.9	3741.1	3747.5	3766.6	3785.7	3796.3	3817.6
20°	3624.4	3628.6	3635.0	3639.2	3649.8	3666.8	3679.5	3696.5	3717.8	3736.9	3758.1
22.5°	3564.9	3556.4	3560.6	3564.9	3575.5	3590.4	3605.3	3626.5	3647.7	3666.8	3688.1
25°	3450.2	3452.4	3458.7	3463.0	3475.7	3488.5	3505.5	3530.9	3550.0	3571.3	3594.6
27.5°	3295.3	3297.4	3308.0	3308.0	3318.6	3339.8	3350.4	3371.7	3397.2	3418.4	3446.0
30°	3119.0	3123.2	3123.2	3131.8	3138.1	3148.8	3159.4	3180.6	3193.3	3212.4	3250.7
32.5°	2957.7	2961.9	2959.8	2957.7	2951.3	2949.2	2947.0	2951.3	2955.5	2961.9	2976.7
35°	2862.1	2851.5	2843.0	2828.2	2811.2	2789.9	2770.8	2745.3	2722.0	2702.8	2681.7
37.5°	2770.8	2768.7	2755.9	2734.7	2700.7	2662.5	2618.0	2562.7	2507.5	2448.1	2390.8
40°	2643.4	2637.0	2626.4	2596.7	2558.5	2511.8	2452.3	2384.4	2295.2	2203.9	2110.5
42.5°	2426.8	2429.0	2416.2	2392.9	2356.8	2312.2	2250.6	2176.3	2080.8	1972.5	1851.5
45°	2174.2	2174.2	2169.9	2150.8	2125.4	2089.2	2042.5	1981.0	1887.6	1777.1	1647.6
47.5°	1910.9	1913.0	1906.6	1902.4	1891.8	1868.4	1834.5	1787.8	1721.9	1615.8	1486.2
50°	1643.4	1643.4	1654.0	1651.9	1651.9	1643.4	1628.5	1600.9	1543.6	1458.7	1337.7
52.5°	1375.8	1380.1	1386.5	1395.0	1405.6	1422.5	1405.6	1392.8	1356.7	1290.9	1186.9
55°	1099.8	1104.1	1114.7	1129.5	1142.3	1159.3	1163.5	1163.5	1144.4	1099.8	1021.3
57.5°	864.2	857.8	866.3	879.0	896.0	913.0	925.7	940.6	938.5	908.7	845.0
60°	649.7	651.8	658.2	671.0	683.7	698.5	715.5	728.3	734.7	719.8	679.4
62.5°	473.5	473.5	482.0	494.7	501.1	522.3	532.9	539.3	545.7	543.5	518.1
65°	331.2	335.5	339.7	346.1	352.4	365.2	371.6	384.3	388.5	390.7	371.6
67.5°	233.6	227.2	231.4	235.7	242.0	250.6	263.3	263.3	269.6	269.6	256.9
70°	148.6	148.6	150.8	157.1	161.4	163.5	167.8	172.0	178.4	176.2	176.2
72.5°	99.8	97.7	99.8	101.9	104.1	110.4	110.4	112.5	116.8	118.9	110.4
75°	51.0	53.1	57.3	55.2	61.6	57.3	59.4	65.8	63.7	59.4	59.4
77.5°	42.4	42.4	42.4	40.4	44.6	44.6	42.4	46.7	44.6	44.6	42.4
80°	29.7	31.8	29.7	27.6	29.7	27.6	27.6	27.6	27.6	27.6	25.5
82.5°	23.4	19.1	21.2	19.1	21.2	21.2	19.1	17.0	17.0	19.1	17.0
85°	17.0	12.7	14.9	14.9	12.7	12.7	12.7	12.7	12.7	10.6	10.6
87.5°	10.6	6.4	6.4	6.4	8.5	8.5	8.5	6.4	8.5	8.5	4.3
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°	3955.6	3955.6	3955.6	3955.6	3955.6	3955.6	3955.6	3955.6	3955.6	3955.6	3955.6
2.5°	3962.0	3959.8	3964.1	3962.0	3962.0	3959.8	3962.0	3959.8	3964.1	3955.6	3957.7
5°	3962.0	3957.7	3959.8	3962.0	3964.1	3959.8	3959.8	3959.8	3964.1	3959.8	3962.0
7.5°	3953.4	3951.3	3957.7	3962.0	3959.8	3957.7	3962.0	3959.8	3964.1	3962.0	3966.2
10°	3936.4	3938.6	3942.8	3949.2	3951.3	3953.4	3957.7	3957.7	3964.1	3955.6	3959.8
12.5°	3911.0	3919.5	3930.1	3934.3	3942.8	3942.8	3947.1	3949.2	3953.4	3951.3	3957.7
15°	3879.1	3889.7	3902.5	3913.1	3923.7	3930.1	3936.4	3938.6	3945.0	3938.6	3940.7
17.5°	3840.9	3853.6	3872.8	3885.5	3902.5	3908.9	3917.3	3921.6	3928.0	3923.7	3925.8
20°	3787.8	3802.7	3823.9	3843.0	3853.6	3868.5	3879.1	3885.5	3889.7	3885.5	3887.6
22.5°	3713.5	3734.8	3762.4	3777.2	3798.5	3811.2	3813.3	3828.2	3838.8	3828.2	3832.4
25°	3626.5	3647.7	3668.9	3700.8	3719.9	3734.8	3749.6	3751.8	3762.4	3760.2	3758.1
27.5°	3482.1	3509.7	3545.8	3571.3	3596.7	3620.1	3637.1	3641.3	3652.0	3647.7	3649.8
30°	3284.6	3314.4	3348.3	3388.7	3424.8	3448.1	3469.3	3484.2	3494.8	3488.5	3486.3
32.5°	3004.4	3034.1	3070.2	3110.5	3153.0	3186.9	3212.4	3231.6	3244.3	3240.0	3229.4
35°	2683.8	2692.3	2715.6	2747.5	2783.5	2819.6	2843.0	2864.2	2879.1	2883.3	2883.3
37.5°	2354.7	2327.1	2310.1	2310.1	2331.3	2346.1	2367.4	2380.1	2403.5	2412.0	2418.4
40°	2036.2	1972.5	1913.0	1868.4	1838.7	1836.6	1836.6	1842.9	1864.2	1891.8	1917.3
42.5°	1751.7	1649.7	1558.5	1475.6	1416.2	1382.2	1367.4	1369.5	1386.5	1411.9	1454.4
45°	1524.5	1397.1	1282.4	1182.6	1102.0	1048.9	1023.4	1021.3	1034.0	1063.7	1110.5
47.5°	1348.3	1212.3	1082.8	968.2	881.2	823.8	794.1	785.6	794.1	821.7	876.9
50°	1201.8	1061.6	927.9	808.9	715.5	656.1	628.5	617.9	628.5	651.8	707.0
52.5°	1065.8	921.5	796.2	681.6	581.8	530.8	501.1	494.7	501.1	528.7	573.3
55°	908.7	785.6	662.4	547.8	460.8	409.8	386.4	380.1	386.4	411.9	458.6
57.5°	753.8	647.6	539.3	435.3	361.0	316.3	295.1	286.6	301.5	318.5	373.7
60°	609.3	524.5	433.1	341.8	280.3	239.9	222.9	220.8	225.1	246.3	284.5
62.5°	477.7	407.7	335.5	261.2	210.2	193.2	172.0	169.9	174.1	186.8	216.6
65°	344.0	299.4	244.2	191.1	150.8	127.4	118.9	121.0	125.3	133.8	161.4
67.5°	239.9	208.1	169.9	133.8	104.1	93.4	84.9	82.8	84.9	99.8	114.7
70°	161.4	142.2	114.7	101.9	72.2	57.3	59.4	53.1	61.6	61.6	74.3
72.5°	106.1	93.4	76.4	59.4	51.0	40.4	40.4	38.2	42.4	44.6	55.2
75°	55.2	42.4	42.4	29.7	21.2	10.6	19.1	17.0	14.9	17.0	21.2
77.5°	38.2	31.8	29.7	23.4	21.2	17.0	17.0	17.0	17.0	19.1	21.2
80°	23.4	23.4	17.0	14.9	12.7	10.6	12.7	12.7	12.7	12.7	14.9
82.5°	14.9	12.7	12.7	10.6	10.6	8.5	8.5	8.5	8.5	8.5	12.7
85°	12.7	8.5	8.5	6.4	8.5	14.9	6.4	8.5	8.5	8.5	6.4
87.5°	4.3	6.4	6.4	6.4	4.3	2.1	4.3	6.4	6.4	10.6	8.5
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°	3955.6	3955.6	3955.6	3955.6	3955.6	3955.6	3955.6	3955.6	3955.6	3955.6	3955.6
2.5°	3962.0	3964.1	3964.1	3962.0	3962.0	3957.7	3966.2	3959.8	3962.0	3970.4	3964.1
5°	3966.2	3968.3	3968.3	3966.2	3966.2	3966.2	3968.3	3968.3	3966.2	3964.1	3968.3
7.5°	3974.7	3972.6	3972.6	3968.3	3968.3	3964.1	3968.3	3962.0	3966.2	3962.0	3968.3
10°	3964.1	3966.2	3964.1	3962.0	3962.0	3959.8	3959.8	3953.4	3955.6	3949.2	3953.4
12.5°	3957.7	3955.6	3955.6	3951.3	3947.1	3942.8	3940.7	3934.3	3934.3	3919.5	3925.8
15°	3940.7	3942.8	3936.4	3928.0	3923.7	3913.1	3908.9	3900.3	3891.9	3881.3	3883.4
17.5°	3925.8	3919.5	3911.0	3902.5	3885.5	3877.0	3868.5	3855.8	3851.5	3838.8	3834.6
20°	3881.3	3877.0	3866.4	3851.5	3840.9	3821.8	3813.3	3800.6	3789.9	3777.2	3770.8
22.5°	3823.9	3819.7	3806.9	3792.1	3775.1	3766.6	3758.1	3734.8	3724.1	3711.4	3709.3
25°	3751.8	3745.4	3732.6	3715.7	3707.1	3683.8	3675.3	3658.3	3654.1	3641.3	3639.2
27.5°	3641.3	3632.8	3618.0	3596.7	3581.9	3567.0	3558.5	3545.8	3541.6	3528.8	3526.7
30°	3475.7	3465.1	3435.4	3426.9	3401.4	3386.5	3386.5	3369.5	3371.7	3363.2	3363.2
32.5°	3214.6	3197.6	3174.2	3157.2	3140.2	3131.8	3131.8	3125.4	3129.6	3129.6	3133.9
35°	2868.5	2845.1	2832.4	2821.8	2821.8	2830.2	2855.7	2862.1	2874.9	2885.5	2894.0
37.5°	2424.7	2422.6	2437.5	2450.2	2482.1	2518.2	2562.7	2601.0	2637.0	2662.5	2688.0
40°	1944.9	1998.0	2040.4	2099.9	2148.7	2218.8	2299.4	2365.3	2426.8	2471.5	2518.2
42.5°	1518.1	1586.0	1675.2	1762.3	1849.3	1944.9	2051.1	2142.3	2223.0	2284.6	2333.4
45°	1182.6	1276.0	1384.4	1494.8	1607.3	1726.2	1836.6	1930.0	2015.0	2078.6	2127.5
47.5°	953.3	1055.2	1178.4	1299.4	1426.8	1552.1	1675.2	1755.9	1826.0	1876.9	1921.5
50°	787.7	896.0	1025.5	1163.5	1290.9	1416.2	1522.3	1600.9	1658.3	1702.8	1730.4
52.5°	658.2	772.8	910.9	1048.9	1176.2	1290.9	1386.5	1445.9	1492.6	1524.5	1549.9
55°	543.5	654.0	783.5	913.0	1038.3	1146.5	1225.1	1269.7	1305.8	1324.9	1339.7
57.5°	443.8	545.7	664.6	783.5	891.8	981.0	1042.5	1087.1	1104.1	1118.9	1116.8
60°	348.2	443.8	552.0	654.0	747.4	819.5	864.2	889.6	902.4	908.7	904.5
62.5°	273.9	361.0	443.8	532.9	600.9	662.4	704.9	704.9	711.3	713.4	719.8
65°	203.8	269.6	341.8	407.7	462.8	503.2	526.6	532.9	541.4	539.3	535.1
67.5°	150.8	199.6	252.6	301.5	339.7	365.2	382.2	397.1	394.9	390.7	388.5
70°	104.1	135.9	182.6	212.3	239.9	265.4	269.6	271.8	273.9	276.0	271.8
72.5°	72.2	95.5	121.0	146.5	163.5	174.1	184.7	186.8	186.8	186.8	184.7
75°	36.1	48.8	72.2	82.8	97.7	101.9	110.4	110.4	116.8	108.3	106.1
77.5°	31.8	38.2	51.0	59.4	65.8	72.2	74.3	80.7	78.6	74.3	76.4
80°	19.1	23.4	31.8	36.1	44.6	46.7	48.8	51.0	48.8	51.0	51.0
82.5°	14.9	17.0	21.2	21.2	27.6	27.6	29.7	29.7	31.8	31.8	31.8
85°	8.5	14.9	12.7	25.5	17.0	17.0	21.2	25.5	21.2	21.2	25.5
87.5°	8.5	8.5	6.4	8.5	8.5	8.5	10.6	12.7	12.7	14.9	12.7
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: P249542

CATALOG NUMBER: LSR8B70D010 EC8B70840 8LBDW0MW

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	3955.6	3955.6	3955.6	3955.6
2.5°	3962.0	3966.2	3959.8	3957.7
5°	3968.3	3968.3	3964.1	3964.1
7.5°	3968.3	3968.3	3962.0	3957.7
10°	3951.3	3951.3	3945.0	3940.7
12.5°	3919.5	3919.5	3917.3	3911.0
15°	3879.1	3879.1	3870.6	3864.3
17.5°	3823.9	3828.2	3817.6	3817.6
20°	3764.5	3762.4	3753.9	3749.6
22.5°	3702.9	3698.7	3696.5	3683.8
25°	3637.1	3632.8	3626.5	3620.1
27.5°	3524.6	3522.4	3516.1	3507.6
30°	3352.6	3350.4	3342.0	3342.0
32.5°	3129.6	3127.5	3119.0	3121.2
35°	2898.2	2906.7	2902.4	2894.0
37.5°	2705.0	2711.4	2715.6	2711.4
40°	2543.6	2562.7	2564.9	2569.1
42.5°	2371.7	2397.1	2405.6	2409.8
45°	2165.7	2189.0	2208.2	2203.9
47.5°	1955.5	1972.5	1989.4	1976.7
50°	1753.8	1764.4	1770.8	1770.8
52.5°	1562.7	1562.7	1560.6	1562.7
55°	1344.0	1344.0	1335.5	1339.7
57.5°	1114.7	1118.9	1112.6	1102.0
60°	902.4	891.8	887.5	881.2
62.5°	702.8	702.8	687.9	707.0
65°	526.6	520.2	513.8	511.7
67.5°	382.2	380.1	373.7	371.6
70°	269.6	261.2	259.0	254.8
72.5°	180.5	180.5	176.2	176.2
75°	110.4	99.8	97.7	99.8
77.5°	76.4	74.3	74.3	72.2
80°	51.0	48.8	53.1	46.7
82.5°	31.8	34.0	31.8	34.0
85°	21.2	25.5	23.4	23.4
87.5°	12.7	12.7	12.7	12.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)