

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: P249416

Luminaire Tested: **LSR8B70D010 EC8B70830 8LBDW0B**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P249416  
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 EC8B70830 8LBDW0B  
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT- CYLINDEC  
80 CRI 3000 CCT WITH SPECULAR BLACK TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6495.0 lumens  
Efficiency: N/A  
Efficacy: 85.6 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

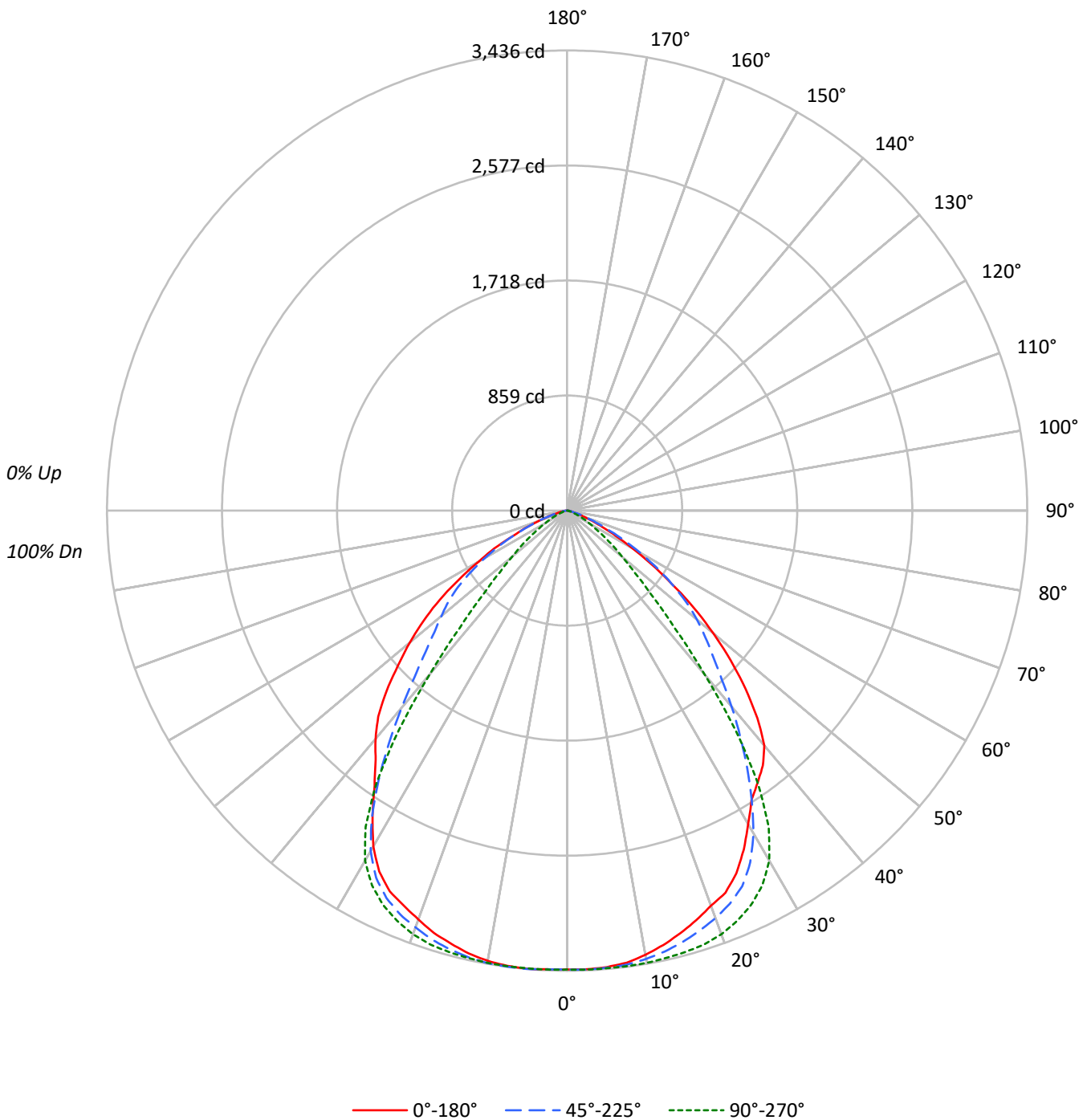
Input Watts (W): 75.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	105673	105673	105673
5°	105906	106191	106306
10°	105459	107360	106899
15°	104290	108931	106876
20°	103040	110463	106601
25°	101701	110589	106710
30°	96216	107479	103092
35°	93343	93410	94382
40°	92186	64269	89597
45°	82142	38585	83263
50°	68299	25680	73595
55°	51224	17704	62401
60°	34716	11798	47081
65°	20941	7654	32345
70°	11613	4147	19898
75°	5266	1751	10306
80°	4564	1953	7192
85°	5201	2583	7182



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	327.0	5.0
10°-20°	949.8	14.6
20°-30°	1441.6	22.2
30°-40°	1514.1	23.3
40°-50°	1135.2	17.5
50°-60°	728.4	11.2
60°-70°	311.6	4.8
70°-80°	73.6	1.1
80°-90°	13.7	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°	2718.4	41.9
0°-40°	4232.6	65.2
0°-60°	6096.1	93.9
0°-90°	6495.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6495.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3427	3427	3427	3427	3427	
5°	3421	3427	3431	3436	3434	325
15°	3267	3335	3412	3390	3348	921
25°	2989	3094	3250	3192	3136	1366
35°	2480	2342	2481	2452	2507	1556
45°	1884	1540	885	1496	1909	1443
55°	953	953	329	993	1161	864
65°	287	338	105	436	443	306
75°	44	52	15	88	86	64
85°	15	9	7	15	20	16
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°	3426.9	3426.9	3426.9	3426.9	3426.9	3426.9	3426.9	3426.9	3426.9	3426.9	3426.9
2.5°	3428.7	3432.4	3430.6	3430.6	3428.7	3430.6	3430.6	3434.3	3434.3	3430.6	3428.7
5°	3421.4	3425.0	3425.0	3421.4	3421.4	3430.6	3425.0	3428.7	3428.7	3426.9	3426.9
7.5°	3404.8	3404.8	3412.2	3406.7	3406.7	3412.2	3410.3	3414.0	3417.7	3419.6	3419.6
10°	3368.0	3371.7	3373.6	3373.6	3375.4	3380.9	3384.6	3392.0	3395.6	3399.3	3401.1
12.5°	3322.1	3327.6	3329.4	3327.6	3333.1	3340.4	3349.7	3358.8	3364.4	3371.7	3377.2
15°	3266.8	3266.8	3270.5	3276.1	3279.8	3290.8	3300.0	3311.0	3325.7	3334.9	3344.1
17.5°	3206.2	3209.9	3215.4	3215.4	3222.7	3241.1	3246.6	3263.2	3279.8	3288.9	3307.3
20°	3140.0	3143.6	3149.1	3152.8	3162.0	3176.7	3187.8	3202.5	3220.9	3237.4	3255.8
22.5°	3088.4	3081.1	3084.7	3088.4	3097.7	3110.5	3123.4	3141.8	3160.2	3176.7	3195.1
25°	2989.1	2990.9	2996.5	3000.1	3011.2	3022.2	3036.9	3059.0	3075.6	3094.0	3114.2
27.5°	2854.8	2856.7	2865.9	2865.9	2875.0	2893.5	2902.6	2921.0	2943.1	2961.5	2985.4
30°	2702.2	2705.8	2705.8	2713.2	2718.7	2727.9	2737.1	2755.5	2766.5	2783.1	2816.2
32.5°	2562.4	2566.0	2564.2	2562.4	2556.8	2555.0	2553.1	2556.8	2560.5	2566.0	2578.9
35°	2479.6	2470.4	2463.0	2450.2	2435.4	2417.0	2400.5	2378.4	2358.2	2341.6	2323.2
37.5°	2400.5	2398.6	2387.6	2369.2	2339.8	2306.7	2268.1	2220.2	2172.4	2120.9	2071.2
40°	2290.1	2284.6	2275.4	2249.7	2216.5	2176.1	2124.6	2065.7	1988.4	1909.3	1828.4
42.5°	2102.5	2104.3	2093.3	2073.0	2041.8	2003.1	1949.8	1885.4	1802.7	1708.8	1604.0
45°	1883.6	1883.6	1879.9	1863.3	1841.3	1810.0	1769.5	1716.2	1635.3	1539.6	1427.4
47.5°	1655.5	1657.3	1651.8	1648.2	1638.9	1618.7	1589.3	1548.8	1491.8	1399.8	1287.6
50°	1423.7	1423.7	1432.9	1431.1	1431.1	1423.7	1410.9	1386.9	1337.3	1263.7	1158.9
52.5°	1192.0	1195.6	1201.2	1208.5	1217.7	1232.4	1217.7	1206.7	1175.4	1118.4	1028.3
55°	952.8	956.5	965.7	978.6	989.6	1004.4	1008.0	1008.0	991.4	952.8	884.8
57.5°	748.7	743.1	750.5	761.5	776.3	791.0	802.0	814.9	813.0	787.3	732.1
60°	562.9	564.7	570.2	581.3	592.3	605.2	619.9	630.9	636.5	623.6	588.6
62.5°	410.2	410.2	417.5	428.6	434.1	452.5	461.7	467.2	472.7	470.9	448.8
65°	287.0	290.6	294.3	299.8	305.3	316.4	321.9	332.9	336.6	338.5	321.9
67.5°	202.4	196.8	200.5	204.2	209.7	217.1	228.1	228.1	233.6	233.6	222.6
70°	128.8	128.8	130.6	136.1	139.8	141.6	145.3	149.0	154.5	152.7	152.7
72.5°	86.5	84.6	86.5	88.3	90.2	95.6	95.6	97.5	101.2	103.0	95.6
75°	44.2	46.0	49.6	47.8	53.3	49.6	51.5	57.0	55.2	51.5	51.5
77.5°	36.8	36.8	36.8	35.0	38.6	38.6	36.8	40.5	38.6	38.6	36.8
80°	25.7	27.6	25.7	23.9	25.7	23.9	23.9	23.9	23.9	23.9	22.1
82.5°	20.3	16.6	18.4	16.6	18.4	18.4	16.6	14.7	14.7	16.6	14.7
85°	14.7	11.0	12.9	12.9	11.0	11.0	11.0	11.0	11.0	9.2	9.2
87.5°	9.2	5.5	5.5	5.5	7.3	7.3	7.3	5.5	7.3	7.3	3.7
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°	3426.9	3426.9	3426.9	3426.9	3426.9	3426.9	3426.9	3426.9	3426.9	3426.9	3426.9
2.5°	3432.4	3430.6	3434.3	3432.4	3432.4	3430.6	3432.4	3430.6	3434.3	3426.9	3428.7
5°	3432.4	3428.7	3430.6	3432.4	3434.3	3430.6	3430.6	3430.6	3434.3	3430.6	3432.4
7.5°	3425.0	3423.2	3428.7	3432.4	3430.6	3428.7	3432.4	3430.6	3434.3	3432.4	3436.1
10°	3410.3	3412.2	3415.9	3421.4	3423.2	3425.0	3428.7	3428.7	3434.3	3426.9	3430.6
12.5°	3388.3	3395.6	3404.8	3408.5	3415.9	3415.9	3419.6	3421.4	3425.0	3423.2	3428.7
15°	3360.7	3369.9	3380.9	3390.1	3399.3	3404.8	3410.3	3412.2	3417.7	3412.2	3414.0
17.5°	3327.6	3338.6	3355.1	3366.2	3380.9	3386.4	3393.8	3397.5	3403.0	3399.3	3401.1
20°	3281.6	3294.5	3312.8	3329.4	3338.6	3351.5	3360.7	3366.2	3369.9	3366.2	3368.0
22.5°	3217.2	3235.6	3259.5	3272.4	3290.8	3301.8	3303.7	3316.5	3325.7	3316.5	3320.2
25°	3141.8	3160.2	3178.6	3206.2	3222.7	3235.6	3248.5	3250.3	3259.5	3257.7	3255.8
27.5°	3016.7	3040.6	3071.9	3094.0	3116.0	3136.3	3151.0	3154.6	3163.9	3160.2	3162.0
30°	2845.6	2871.4	2900.8	2935.8	2967.0	2987.2	3005.7	3018.5	3027.7	3022.2	3020.4
32.5°	2602.8	2628.6	2659.9	2694.8	2731.6	2761.0	2783.1	2799.7	2810.7	2807.0	2797.8
35°	2325.1	2332.4	2352.7	2380.3	2411.5	2442.8	2463.0	2481.4	2494.3	2498.0	2498.0
37.5°	2040.0	2016.1	2001.3	2001.3	2019.7	2032.6	2051.0	2062.0	2082.3	2089.6	2095.1
40°	1764.0	1708.8	1657.3	1618.7	1593.0	1591.1	1591.1	1596.6	1615.0	1638.9	1661.0
42.5°	1517.5	1429.2	1350.2	1278.4	1226.9	1197.5	1184.6	1186.5	1201.2	1223.2	1260.0
45°	1320.7	1210.4	1111.0	1024.6	954.7	908.7	886.6	884.8	895.8	921.5	962.1
47.5°	1168.1	1050.3	938.1	838.8	763.4	713.7	688.0	680.6	688.0	711.9	759.7
50°	1041.1	919.7	803.8	700.8	619.9	568.4	544.5	535.3	544.5	564.7	612.5
52.5°	923.4	798.3	689.8	590.5	504.0	459.9	434.1	428.6	434.1	458.0	496.7
55°	787.3	680.6	573.9	474.6	399.2	355.0	334.8	329.3	334.8	356.9	397.3
57.5°	653.0	561.0	467.2	377.1	312.7	274.1	255.7	248.3	261.2	275.9	323.7
60°	527.9	454.4	375.2	296.2	242.8	207.8	193.1	191.3	195.0	213.4	246.5
62.5°	413.9	353.2	290.6	226.3	182.1	167.4	149.0	147.2	150.8	161.9	187.6
65°	298.0	259.4	211.5	165.5	130.6	110.4	103.0	104.9	108.5	115.9	139.8
67.5°	207.8	180.3	147.2	115.9	90.2	80.9	73.6	71.7	73.6	86.5	99.3
70°	139.8	123.2	99.3	88.3	62.6	49.6	51.5	46.0	53.3	53.3	64.4
72.5°	92.0	80.9	66.2	51.5	44.2	35.0	35.0	33.1	36.8	38.6	47.8
75°	47.8	36.8	36.8	25.7	18.4	9.2	16.6	14.7	12.9	14.7	18.4
77.5°	33.1	27.6	25.7	20.3	18.4	14.7	14.7	14.7	14.7	16.6	18.4
80°	20.3	20.3	14.7	12.9	11.0	9.2	11.0	11.0	11.0	11.0	12.9
82.5°	12.9	11.0	11.0	9.2	9.2	7.3	7.3	7.3	7.3	7.3	11.0
85°	11.0	7.3	7.3	5.5	7.3	12.9	5.5	7.3	7.3	7.3	5.5
87.5°	3.7	5.5	5.5	5.5	3.7	1.8	3.7	5.5	5.5	9.2	7.3
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°	3426.9	3426.9	3426.9	3426.9	3426.9	3426.9	3426.9	3426.9	3426.9	3426.9	3426.9
2.5°	3432.4	3434.3	3434.3	3432.4	3432.4	3428.7	3436.1	3430.6	3432.4	3439.8	3434.3
5°	3436.1	3437.9	3437.9	3436.1	3436.1	3436.1	3437.9	3437.9	3436.1	3434.3	3437.9
7.5°	3443.5	3441.6	3441.6	3437.9	3437.9	3434.3	3437.9	3432.4	3436.1	3432.4	3437.9
10°	3434.3	3436.1	3434.3	3432.4	3432.4	3430.6	3430.6	3425.0	3426.9	3421.4	3425.0
12.5°	3428.7	3426.9	3426.9	3423.2	3419.6	3415.9	3414.0	3408.5	3408.5	3395.6	3401.1
15°	3414.0	3415.9	3410.3	3403.0	3399.3	3390.1	3386.4	3379.0	3371.7	3362.5	3364.4
17.5°	3401.1	3395.6	3388.3	3380.9	3366.2	3358.8	3351.5	3340.4	3336.7	3325.7	3322.1
20°	3362.5	3358.8	3349.7	3336.7	3327.6	3311.0	3303.7	3292.6	3283.4	3272.4	3266.8
22.5°	3312.8	3309.1	3298.1	3285.2	3270.5	3263.2	3255.8	3235.6	3226.4	3215.4	3213.5
25°	3250.3	3244.8	3233.8	3219.0	3211.7	3191.5	3184.1	3169.4	3165.7	3154.6	3152.8
27.5°	3154.6	3147.3	3134.4	3116.0	3103.1	3090.3	3082.9	3071.9	3068.2	3057.1	3055.3
30°	3011.2	3002.0	2976.2	2968.9	2946.8	2933.9	2933.9	2919.2	2921.0	2913.7	2913.7
32.5°	2784.9	2770.2	2750.0	2735.2	2720.5	2713.2	2713.2	2707.7	2711.3	2711.3	2715.0
35°	2485.1	2464.9	2453.8	2444.6	2444.6	2452.0	2474.1	2479.6	2490.6	2499.8	2507.2
37.5°	2100.6	2098.8	2111.7	2122.7	2150.3	2181.6	2220.2	2253.3	2284.6	2306.7	2328.7
40°	1684.9	1730.9	1767.7	1819.2	1861.5	1922.2	1992.1	2049.1	2102.5	2141.1	2181.6
42.5°	1315.2	1374.1	1451.3	1526.7	1602.2	1684.9	1776.9	1856.0	1925.9	1979.2	2021.5
45°	1024.6	1105.5	1199.3	1295.0	1392.5	1495.5	1591.1	1672.1	1745.6	1800.8	1843.1
47.5°	825.9	914.2	1020.9	1125.7	1236.1	1344.6	1451.3	1521.2	1581.9	1626.1	1664.7
50°	682.4	776.3	888.5	1008.0	1118.4	1226.9	1318.9	1386.9	1436.6	1475.2	1499.1
52.5°	570.2	669.5	789.1	908.7	1019.0	1118.4	1201.2	1252.7	1293.1	1320.7	1342.8
55°	470.9	566.6	678.8	791.0	899.5	993.3	1061.3	1100.0	1131.2	1147.8	1160.7
57.5°	384.5	472.7	575.7	678.8	772.6	849.8	903.2	941.8	956.5	969.4	967.5
60°	301.7	384.5	478.3	566.6	647.5	710.0	748.7	770.7	781.8	787.3	783.6
62.5°	237.3	312.7	384.5	461.7	520.6	573.9	610.7	610.7	616.2	618.1	623.6
65°	176.6	233.6	296.2	353.2	401.0	436.0	456.2	461.7	469.1	467.2	463.5
67.5°	130.6	172.9	218.9	261.2	294.3	316.4	331.1	344.0	342.2	338.5	336.6
70°	90.2	117.7	158.2	183.9	207.8	229.9	233.6	235.4	237.3	239.1	235.4
72.5°	62.6	82.8	104.9	126.9	141.6	150.8	160.0	161.9	161.9	161.9	160.0
75°	31.3	42.3	62.6	71.7	84.6	88.3	95.6	95.6	101.2	93.8	92.0
77.5°	27.6	33.1	44.2	51.5	57.0	62.6	64.4	69.9	68.1	64.4	66.2
80°	16.6	20.3	27.6	31.3	38.6	40.5	42.3	44.2	42.3	44.2	44.2
82.5°	12.9	14.7	18.4	18.4	23.9	23.9	25.7	25.7	27.6	27.6	27.6
85°	7.3	12.9	11.0	22.1	14.7	14.7	18.4	22.1	18.4	18.4	22.1
87.5°	7.3	7.3	5.5	7.3	7.3	7.3	9.2	11.0	11.0	12.9	11.0
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: P249416

CATALOG NUMBER: LSR8B70D010 EC8B70830 8LBDW0B

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	3426.9	3426.9	3426.9	3426.9
2.5°	3432.4	3436.1	3430.6	3428.7
5°	3437.9	3437.9	3434.3	3434.3
7.5°	3437.9	3437.9	3432.4	3428.7
10°	3423.2	3423.2	3417.7	3414.0
12.5°	3395.6	3395.6	3393.8	3388.3
15°	3360.7	3360.7	3353.3	3347.8
17.5°	3312.8	3316.5	3307.3	3307.3
20°	3261.3	3259.5	3252.2	3248.5
22.5°	3208.0	3204.3	3202.5	3191.5
25°	3151.0	3147.3	3141.8	3136.3
27.5°	3053.5	3051.7	3046.1	3038.8
30°	2904.5	2902.6	2895.3	2895.3
32.5°	2711.3	2709.5	2702.2	2704.0
35°	2510.8	2518.2	2514.5	2507.2
37.5°	2343.4	2349.0	2352.7	2349.0
40°	2203.7	2220.2	2222.1	2225.8
42.5°	2054.7	2076.7	2084.1	2087.8
45°	1876.2	1896.5	1913.0	1909.3
47.5°	1694.1	1708.8	1723.5	1712.5
50°	1519.4	1528.6	1534.1	1534.1
52.5°	1353.8	1353.8	1352.0	1353.8
55°	1164.4	1164.4	1157.0	1160.7
57.5°	965.7	969.4	963.9	954.7
60°	781.8	772.6	768.9	763.4
62.5°	608.9	608.9	596.0	612.5
65°	456.2	450.7	445.1	443.3
67.5°	331.1	329.3	323.7	321.9
70°	233.6	226.3	224.4	220.7
72.5°	156.4	156.4	152.7	152.7
75°	95.6	86.5	84.6	86.5
77.5°	66.2	64.4	64.4	62.6
80°	44.2	42.3	46.0	40.5
82.5°	27.6	29.4	27.6	29.4
85°	18.4	22.1	20.3	20.3
87.5°	11.0	11.0	11.0	11.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)