

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: P249427

Luminaire Tested: **LSR8B90D010 EC8B90835 8LBDW0B**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249427
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 EC8B90835 8LBDW0B
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 3500 CCT WITH SPECULAR BLACK TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8460.0 lumens
Efficiency: N/A
Efficacy: 98.3 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

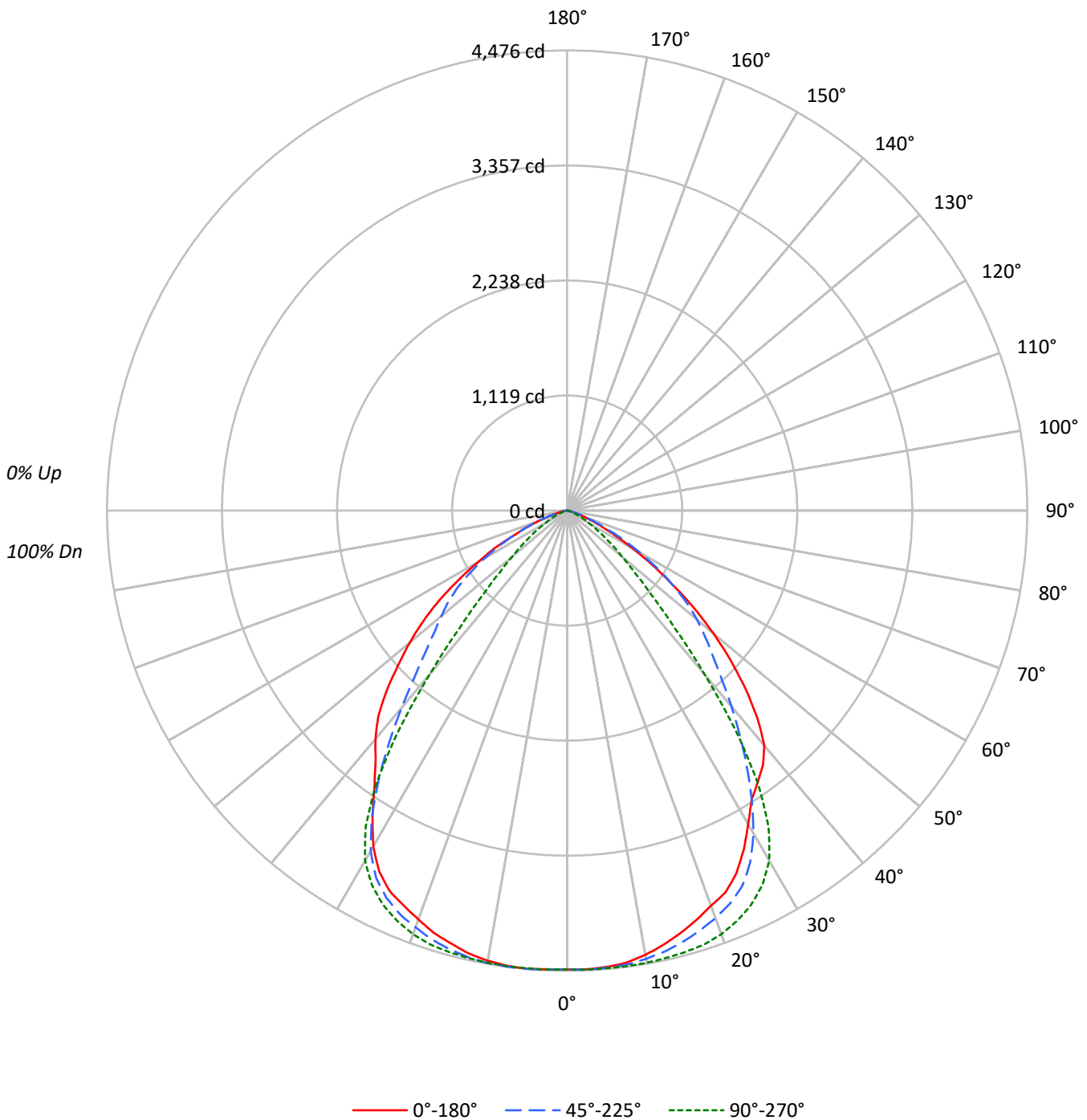
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	137644	137644	137644
5°	137947	138318	138467
10°	137366	139843	139241
15°	135843	141887	139211
20°	134211	143882	138851
25°	132469	144048	138992
30°	125325	139998	134280
35°	121583	121670	122935
40°	120078	83716	116700
45°	106995	50260	108456
50°	88966	33447	95859
55°	66723	23058	81277
60°	45218	15369	61321
65°	27274	9967	42130
70°	15120	5401	25921
75°	6851	2288	13415
80°	5949	2557	9358
85°	6793	3397	9341



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	426.0	5.0
10°-20°	1237.1	14.6
20°-30°	1877.8	22.2
30°-40°	1972.2	23.3
40°-50°	1478.6	17.5
50°-60°	948.7	11.2
60°-70°	405.9	4.8
70°-80°	95.9	1.1
80°-90°	17.9	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°	3540.9	41.9
0°-40°	5513.1	65.2
0°-60°	7940.4	93.9
0°-90°	8460.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8460.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4464	4464	4464	4464	4464	
5°	4456	4464	4468	4476	4473	423
15°	4255	4344	4444	4416	4361	1200
25°	3893	4030	4234	4157	4085	1779
35°	3230	3050	3232	3194	3266	2027
45°	2454	2005	1152	1948	2487	1879
55°	1241	1241	429	1294	1512	1126
65°	374	441	137	568	577	399
75°	58	67	19	115	113	84
85°	19	12	10	19	26	20
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°	4463.7	4463.7	4463.7	4463.7	4463.7	4463.7	4463.7	4463.7	4463.7	4463.7	4463.7
2.5°	4466.1	4470.9	4468.5	4468.5	4466.1	4468.5	4468.5	4473.3	4473.3	4468.5	4466.1
5°	4456.5	4461.3	4461.3	4456.5	4456.5	4468.5	4461.3	4466.1	4466.1	4463.7	4463.7
7.5°	4434.9	4434.9	4444.5	4437.3	4437.3	4444.5	4442.1	4446.9	4451.7	4454.1	4454.1
10°	4387.0	4391.8	4394.2	4394.2	4396.6	4403.7	4408.6	4418.2	4422.9	4427.7	4430.1
12.5°	4327.1	4334.3	4336.7	4334.3	4341.5	4351.0	4363.1	4375.0	4382.2	4391.8	4399.0
15°	4255.2	4255.2	4260.0	4267.2	4272.0	4286.4	4298.3	4312.7	4331.9	4343.9	4355.9
17.5°	4176.2	4181.0	4188.1	4188.1	4197.7	4221.7	4228.9	4250.4	4272.0	4284.0	4308.0
20°	4089.9	4094.7	4101.9	4106.7	4118.7	4137.8	4152.2	4171.4	4195.3	4216.9	4240.8
22.5°	4022.8	4013.2	4018.0	4022.8	4034.8	4051.6	4068.4	4092.3	4116.2	4137.8	4161.8
25°	3893.4	3895.8	3903.0	3907.8	3922.2	3936.6	3955.7	3984.5	4006.0	4030.0	4056.3
27.5°	3718.5	3720.9	3732.9	3732.9	3744.9	3768.8	3780.8	3804.8	3833.6	3857.5	3888.7
30°	3519.7	3524.4	3524.4	3534.0	3541.2	3553.2	3565.2	3589.2	3603.5	3625.1	3668.2
32.5°	3337.6	3342.3	3339.9	3337.6	3330.4	3328.0	3325.6	3330.4	3335.2	3342.3	3359.1
35°	3229.8	3217.8	3208.2	3191.4	3172.3	3148.3	3126.7	3098.0	3071.6	3050.0	3026.1
37.5°	3126.7	3124.3	3109.9	3086.0	3047.6	3004.5	2954.2	2891.9	2829.6	2762.5	2697.9
40°	2983.0	2975.8	2963.8	2930.3	2887.1	2834.4	2767.3	2690.7	2590.0	2487.0	2381.6
42.5°	2738.6	2741.0	2726.6	2700.2	2659.5	2609.2	2539.7	2455.9	2348.1	2225.8	2089.3
45°	2453.5	2453.5	2448.7	2427.1	2398.4	2357.6	2304.9	2235.4	2130.0	2005.4	1859.2
47.5°	2156.4	2158.8	2151.5	2146.8	2134.8	2108.5	2070.1	2017.4	1943.1	1823.3	1677.1
50°	1854.5	1854.5	1866.4	1864.0	1864.0	1854.5	1837.7	1806.5	1741.9	1646.0	1509.5
52.5°	1552.6	1557.4	1564.6	1574.1	1586.1	1605.3	1586.1	1571.7	1531.0	1456.7	1339.4
55°	1241.1	1245.9	1257.9	1274.6	1289.0	1308.2	1313.0	1313.0	1291.4	1241.1	1152.5
57.5°	975.2	968.0	977.6	991.9	1011.1	1030.3	1044.6	1061.4	1059.0	1025.5	953.6
60°	733.2	735.6	742.7	757.1	771.5	788.3	807.4	821.8	829.0	812.3	766.7
62.5°	534.3	534.3	543.9	558.2	565.4	589.4	601.4	608.6	615.7	613.3	584.6
65°	373.8	378.5	383.4	390.6	397.7	412.1	419.3	433.7	438.5	440.9	419.3
67.5°	263.6	256.4	261.2	265.9	273.1	282.7	297.1	297.1	304.3	304.3	289.9
70°	167.7	167.7	170.1	177.3	182.1	184.5	189.3	194.1	201.3	198.9	198.9
72.5°	112.6	110.2	112.6	115.0	117.4	124.6	124.6	127.0	131.8	134.2	124.6
75°	57.5	59.9	64.7	62.3	69.5	64.7	67.1	74.3	71.9	67.1	67.1
77.5°	47.9	47.9	47.9	45.6	50.3	50.3	47.9	52.7	50.3	50.3	47.9
80°	33.5	35.9	33.5	31.1	33.5	31.1	31.1	31.1	31.1	31.1	28.7
82.5°	26.4	21.6	24.0	21.6	24.0	24.0	21.6	19.2	19.2	21.6	19.2
85°	19.2	14.4	16.8	16.8	14.4	14.4	14.4	14.4	14.4	12.0	12.0
87.5°	12.0	7.2	7.2	7.2	9.6	9.6	9.6	7.2	9.6	9.6	4.8
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°	4463.7	4463.7	4463.7	4463.7	4463.7	4463.7	4463.7	4463.7	4463.7	4463.7	4463.7
2.5°	4470.9	4468.5	4473.3	4470.9	4470.9	4468.5	4470.9	4468.5	4473.3	4463.7	4466.1
5°	4470.9	4466.1	4468.5	4470.9	4473.3	4468.5	4468.5	4468.5	4473.3	4468.5	4470.9
7.5°	4461.3	4458.9	4466.1	4470.9	4468.5	4466.1	4470.9	4468.5	4473.3	4470.9	4475.6
10°	4442.1	4444.5	4449.3	4456.5	4458.9	4461.3	4466.1	4466.1	4473.3	4463.7	4468.5
12.5°	4413.4	4422.9	4434.9	4439.7	4449.3	4449.3	4454.1	4456.5	4461.3	4458.9	4466.1
15°	4377.4	4389.4	4403.7	4415.8	4427.7	4434.9	4442.1	4444.5	4451.7	4444.5	4446.9
17.5°	4334.3	4348.6	4370.2	4384.6	4403.7	4411.0	4420.5	4425.3	4432.5	4427.7	4430.1
20°	4274.4	4291.2	4315.1	4336.7	4348.6	4365.4	4377.4	4384.6	4389.4	4384.6	4387.0
22.5°	4190.5	4214.5	4245.6	4262.4	4286.4	4300.7	4303.1	4319.9	4331.9	4319.9	4324.7
25°	4092.3	4116.2	4140.2	4176.2	4197.7	4214.5	4231.3	4233.7	4245.6	4243.2	4240.8
27.5°	3929.4	3960.5	4001.2	4030.0	4058.7	4085.1	4104.3	4109.0	4121.1	4116.2	4118.7
30°	3706.5	3740.1	3778.4	3823.9	3864.7	3891.0	3915.0	3931.8	3943.7	3936.6	3934.2
32.5°	3390.3	3423.8	3464.6	3510.1	3558.0	3596.3	3625.1	3646.7	3661.0	3656.2	3644.3
35°	3028.5	3038.1	3064.5	3100.4	3141.1	3181.8	3208.2	3232.1	3248.9	3253.7	3253.7
37.5°	2657.1	2626.0	2606.8	2606.8	2630.7	2647.5	2671.5	2685.9	2712.2	2721.8	2729.0
40°	2297.7	2225.8	2158.8	2108.5	2074.9	2072.5	2072.5	2079.7	2103.6	2134.8	2163.6
42.5°	1976.7	1861.6	1758.6	1665.2	1598.1	1559.8	1543.0	1545.4	1564.6	1593.3	1641.2
45°	1720.3	1576.5	1447.2	1334.5	1243.5	1183.6	1154.9	1152.5	1166.8	1200.4	1253.1
47.5°	1521.4	1368.1	1221.9	1092.5	994.3	929.6	896.1	886.5	896.1	927.2	989.5
50°	1356.1	1198.0	1047.0	912.9	807.4	740.4	709.2	697.2	709.2	735.6	797.8
52.5°	1202.8	1039.8	898.5	769.1	656.5	599.0	565.4	558.2	565.4	596.6	646.9
55°	1025.5	886.5	747.5	618.1	519.9	462.4	436.1	428.9	436.1	464.8	517.5
57.5°	850.6	730.8	608.6	491.2	407.3	357.0	333.0	323.4	340.2	359.4	421.7
60°	687.6	591.8	488.8	385.8	316.3	270.7	251.6	249.2	254.0	277.9	321.0
62.5°	539.1	460.0	378.5	294.7	237.2	218.0	194.1	191.7	196.5	210.8	244.4
65°	388.2	337.9	275.5	215.6	170.1	143.7	134.2	136.6	141.3	151.0	182.1
67.5°	270.7	234.8	191.7	151.0	117.4	105.4	95.9	93.4	95.9	112.6	129.4
70°	182.1	160.5	129.4	115.0	81.5	64.7	67.1	59.9	69.5	69.5	83.8
72.5°	119.8	105.4	86.2	67.1	57.5	45.6	45.6	43.1	47.9	50.3	62.3
75°	62.3	47.9	47.9	33.5	24.0	12.0	21.6	19.2	16.8	19.2	24.0
77.5°	43.1	35.9	33.5	26.4	24.0	19.2	19.2	19.2	19.2	21.6	24.0
80°	26.4	26.4	19.2	16.8	14.4	12.0	14.4	14.4	14.4	14.4	16.8
82.5°	16.8	14.4	14.4	12.0	12.0	9.6	9.6	9.6	9.6	9.6	14.4
85°	14.4	9.6	9.6	7.2	9.6	16.8	7.2	9.6	9.6	9.6	7.2
87.5°	4.8	7.2	7.2	7.2	4.8	2.4	4.8	7.2	7.2	12.0	9.6
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°	4463.7	4463.7	4463.7	4463.7	4463.7	4463.7	4463.7	4463.7	4463.7	4463.7	4463.7
2.5°	4470.9	4473.3	4473.3	4470.9	4470.9	4466.1	4475.6	4468.5	4470.9	4480.4	4473.3
5°	4475.6	4478.0	4478.0	4475.6	4475.6	4475.6	4478.0	4478.0	4475.6	4473.3	4478.0
7.5°	4485.2	4482.8	4482.8	4478.0	4478.0	4473.3	4478.0	4470.9	4475.6	4470.9	4478.0
10°	4473.3	4475.6	4473.3	4470.9	4470.9	4468.5	4468.5	4461.3	4463.7	4456.5	4461.3
12.5°	4466.1	4463.7	4463.7	4458.9	4454.1	4449.3	4446.9	4439.7	4439.7	4422.9	4430.1
15°	4446.9	4449.3	4442.1	4432.5	4427.7	4415.8	4411.0	4401.3	4391.8	4379.8	4382.2
17.5°	4430.1	4422.9	4413.4	4403.7	4384.6	4375.0	4365.4	4351.0	4346.2	4331.9	4327.1
20°	4379.8	4375.0	4363.1	4346.2	4334.3	4312.7	4303.1	4288.8	4276.8	4262.4	4255.2
22.5°	4315.1	4310.3	4295.9	4279.2	4260.0	4250.4	4240.8	4214.5	4202.5	4188.1	4185.7
25°	4233.7	4226.5	4212.1	4192.9	4183.3	4157.0	4147.4	4128.2	4123.5	4109.0	4106.7
27.5°	4109.0	4099.5	4082.7	4058.7	4042.0	4025.2	4015.6	4001.2	3996.5	3982.1	3979.7
30°	3922.2	3910.2	3876.6	3867.1	3838.3	3821.5	3821.5	3802.4	3804.8	3795.2	3795.2
32.5°	3627.5	3608.3	3581.9	3562.8	3543.6	3534.0	3534.0	3526.8	3531.6	3531.6	3536.4
35°	3236.9	3210.6	3196.2	3184.2	3184.2	3193.8	3222.6	3229.8	3244.1	3256.1	3265.7
37.5°	2736.2	2733.8	2750.6	2764.9	2800.9	2841.6	2891.9	2935.1	2975.8	3004.5	3033.3
40°	2194.7	2254.6	2302.5	2369.6	2424.7	2503.8	2594.8	2669.1	2738.6	2788.9	2841.6
42.5°	1713.1	1789.8	1890.4	1988.6	2086.9	2194.7	2314.5	2417.5	2508.6	2578.0	2633.2
45°	1334.5	1440.0	1562.2	1686.8	1813.7	1947.9	2072.5	2177.9	2273.8	2345.7	2400.8
47.5°	1075.8	1190.8	1329.7	1466.3	1610.1	1751.4	1890.4	1981.5	2060.5	2118.0	2168.4
50°	888.9	1011.1	1157.3	1313.0	1456.7	1598.1	1717.9	1806.5	1871.3	1921.6	1952.7
52.5°	742.7	872.1	1027.9	1183.6	1327.3	1456.7	1564.6	1631.7	1684.4	1720.3	1749.0
55°	613.3	738.0	884.1	1030.3	1171.6	1293.8	1382.4	1432.8	1473.5	1495.1	1511.8
57.5°	500.8	615.7	749.9	884.1	1006.3	1107.0	1176.4	1226.7	1245.9	1262.7	1260.3
60°	393.0	500.8	623.0	738.0	843.4	924.8	975.2	1003.9	1018.3	1025.5	1020.7
62.5°	309.1	407.3	500.8	601.4	678.1	747.5	795.5	795.5	802.6	805.0	812.3
65°	230.0	304.3	385.8	460.0	522.3	567.8	594.2	601.4	611.0	608.6	603.8
67.5°	170.1	225.2	285.1	340.2	383.4	412.1	431.2	448.1	445.7	440.9	438.5
70°	117.4	153.4	206.1	239.6	270.7	299.5	304.3	306.7	309.1	311.5	306.7
72.5°	81.5	107.8	136.6	165.3	184.5	196.5	208.5	210.8	210.8	210.8	208.5
75°	40.7	55.1	81.5	93.4	110.2	115.0	124.6	124.6	131.8	122.2	119.8
77.5°	35.9	43.1	57.5	67.1	74.3	81.5	83.8	91.0	88.6	83.8	86.2
80°	21.6	26.4	35.9	40.7	50.3	52.7	55.1	57.5	55.1	57.5	57.5
82.5°	16.8	19.2	24.0	24.0	31.1	31.1	33.5	33.5	35.9	35.9	35.9
85°	9.6	16.8	14.4	28.7	19.2	19.2	24.0	28.7	24.0	24.0	28.7
87.5°	9.6	9.6	7.2	9.6	9.6	9.6	12.0	14.4	14.4	16.8	14.4
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: P249427

CATALOG NUMBER: LSR8B90D010 EC8B90835 8LBDW0B

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4463.7	4463.7	4463.7	4463.7
2.5°	4470.9	4475.6	4468.5	4466.1
5°	4478.0	4478.0	4473.3	4473.3
7.5°	4478.0	4478.0	4470.9	4466.1
10°	4458.9	4458.9	4451.7	4446.9
12.5°	4422.9	4422.9	4420.5	4413.4
15°	4377.4	4377.4	4367.8	4360.7
17.5°	4315.1	4319.9	4308.0	4308.0
20°	4248.0	4245.6	4236.1	4231.3
22.5°	4178.6	4173.8	4171.4	4157.0
25°	4104.3	4099.5	4092.3	4085.1
27.5°	3977.3	3974.9	3967.7	3958.1
30°	3783.2	3780.8	3771.2	3771.2
32.5°	3531.6	3529.2	3519.7	3522.1
35°	3270.5	3280.1	3275.3	3265.7
37.5°	3052.4	3059.6	3064.5	3059.6
40°	2870.3	2891.9	2894.3	2899.1
42.5°	2676.3	2705.0	2714.6	2719.4
45°	2443.9	2470.2	2491.8	2487.0
47.5°	2206.7	2225.8	2245.0	2230.6
50°	1979.1	1991.0	1998.2	1998.2
52.5°	1763.4	1763.4	1761.0	1763.4
55°	1516.6	1516.6	1507.1	1511.8
57.5°	1257.9	1262.7	1255.5	1243.5
60°	1018.3	1006.3	1001.5	994.3
62.5°	793.1	793.1	776.3	797.8
65°	594.2	587.0	579.8	577.4
67.5°	431.2	428.9	421.7	419.3
70°	304.3	294.7	292.3	287.5
72.5°	203.7	203.7	198.9	198.9
75°	124.6	112.6	110.2	112.6
77.5°	86.2	83.8	83.8	81.5
80°	57.5	55.1	59.9	52.7
82.5°	35.9	38.3	35.9	38.3
85°	24.0	28.7	26.4	26.4
87.5°	14.4	14.4	14.4	14.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)