

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: P248347

Luminaire Tested: **LSR8B90D010 EC8B90835 8LBDW0LI**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P248347
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 EC8B90835 8LBDW0LI
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
80 CRI 3500 CCT WITH SPECULAR CLEAR TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9907.0 lumens
Efficiency: N/A
Efficacy: 115.1 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

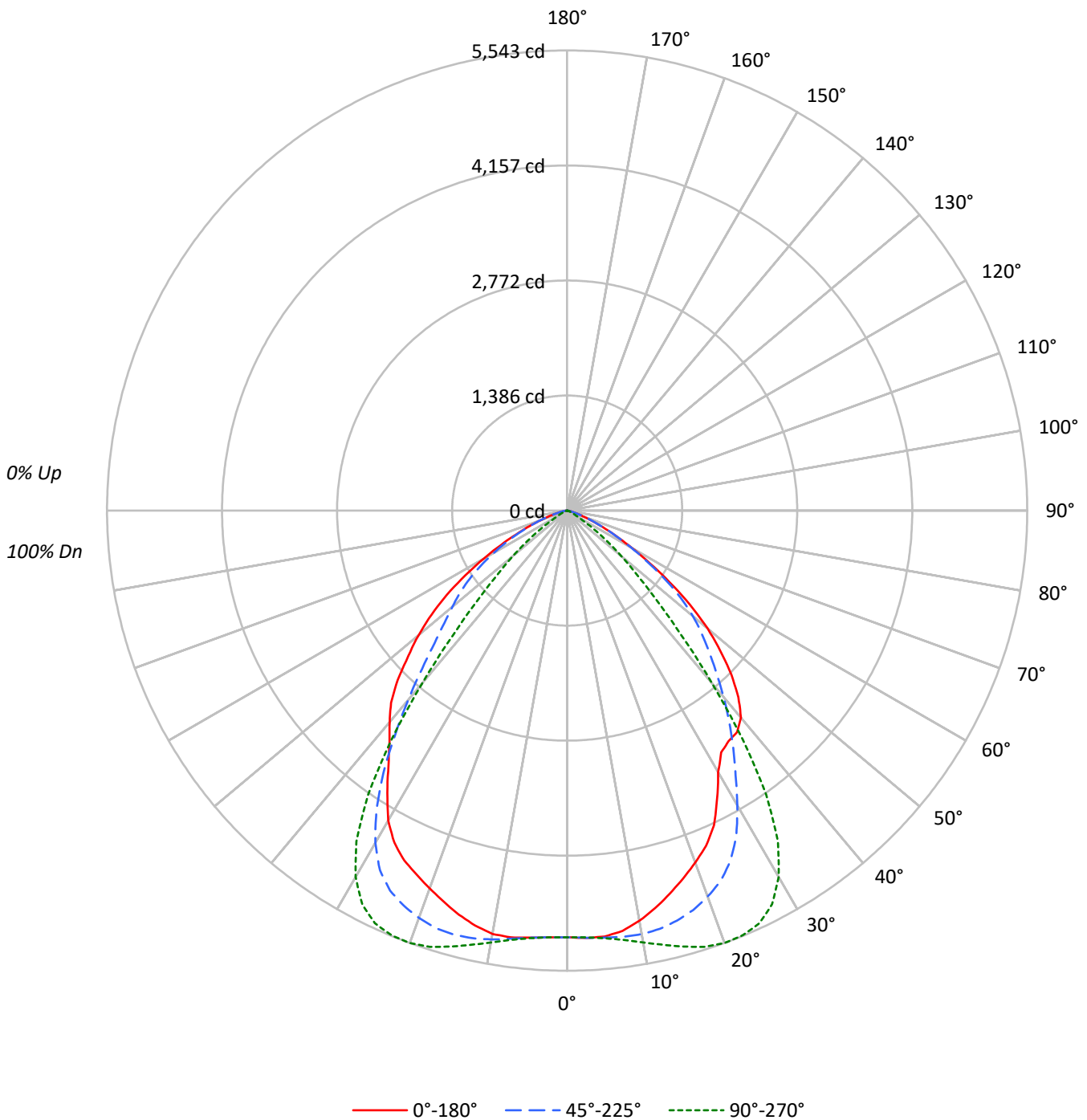
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	158480	158480	158480
5°	159423	160014	159847
10°	157083	165368	162121
15°	152489	173565	160850
20°	148063	181902	158895
25°	142377	186561	158158
30°	129573	181445	153468
35°	127644	157221	141200
40°	131115	109040	133856
45°	122058	65902	125865
50°	105871	40700	112156
55°	81244	21263	95179
60°	55351	8579	71836
65°	34432	4378	49558
70°	18690	2705	30248
75°	9746	1299	17871
80°	4368	1456	9678
85°	2901	955	8704



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	494.2	5.0
10°-20°	1464.2	14.8
20°-30°	2233.7	22.5
30°-40°	2330.9	23.5
40°-50°	1750.8	17.7
50°-60°	1077.2	10.9
60°-70°	438.4	4.4
70°-80°	103.3	1.0
80°-90°	14.2	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°	4192.1	42.3
0°-40°	6523.0	65.8
0°-60°	9351.1	94.4
0°-90°	9907.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9907.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5139	5139	5139	5139	5139	
5°	5150	5164	5169	5164	5164	487
15°	4777	5112	5437	5287	5038	1346
25°	4185	4654	5483	5049	4648	1902
35°	3391	3486	4176	3860	3751	2141
45°	2799	2422	1511	2256	2886	2135
55°	1511	1435	396	1435	1770	1358
65°	472	477	60	641	679	492
75°	82	82	11	145	150	99
85°	8	8	3	19	25	12
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°	5139.4	5139.4	5139.4	5139.4	5139.4	5139.4	5139.4	5139.4	5139.4	5139.4	5139.4
2.5°	5153.1	5144.9	5153.1	5153.1	5155.8	5150.3	5153.1	5155.8	5150.3	5150.3	5150.3
5°	5150.3	5144.9	5150.3	5147.6	5153.1	5153.1	5158.6	5158.6	5164.0	5164.0	5172.2
7.5°	5106.7	5095.8	5106.7	5114.9	5120.3	5131.3	5144.9	5155.8	5166.7	5177.6	5191.3
10°	5016.7	5016.7	5024.9	5041.2	5057.6	5076.7	5101.2	5128.5	5155.8	5180.3	5204.9
12.5°	4904.8	4896.6	4913.0	4934.8	4959.4	4989.4	5027.6	5068.5	5112.2	5161.2	5199.5
15°	4776.6	4768.4	4787.5	4809.3	4839.4	4883.0	4929.4	4983.9	5046.7	5112.2	5174.9
17.5°	4645.7	4642.9	4662.0	4692.1	4716.6	4762.9	4823.0	4888.4	4959.4	5046.7	5128.5
20°	4512.0	4509.3	4528.4	4553.0	4585.7	4629.3	4689.3	4765.7	4850.2	4948.5	5044.0
22.5°	4372.9	4375.6	4392.0	4419.3	4446.6	4492.9	4555.6	4632.0	4724.8	4831.2	4937.6
25°	4184.6	4171.0	4192.8	4220.1	4266.5	4304.7	4364.7	4446.6	4542.0	4653.9	4779.4
27.5°	3911.8	3909.1	3928.3	3952.8	3993.7	4040.1	4105.5	4190.1	4291.0	4413.8	4536.5
30°	3639.0	3644.5	3652.7	3677.3	3704.5	3750.9	3816.4	3887.3	3982.8	4100.1	4231.0
32.5°	3453.5	3453.5	3464.5	3480.8	3499.9	3524.5	3570.9	3622.7	3696.4	3778.2	3873.7
35°	3390.8	3379.9	3390.8	3393.5	3396.3	3401.7	3409.9	3426.3	3450.8	3486.3	3521.8
37.5°	3363.6	3355.4	3355.4	3344.5	3330.8	3314.4	3292.6	3268.1	3240.8	3205.3	3178.1
40°	3257.2	3251.7	3246.2	3235.3	3205.3	3172.6	3137.1	3079.8	3017.1	2929.8	2842.5
42.5°	3052.6	3047.1	3044.4	3022.6	2995.3	2957.1	2916.2	2856.1	2777.1	2665.2	2539.7
45°	2798.9	2787.9	2779.8	2760.7	2741.5	2708.8	2670.7	2616.1	2537.0	2422.4	2272.4
47.5°	2504.3	2498.8	2496.0	2487.9	2468.8	2449.7	2425.2	2381.5	2310.6	2201.4	2046.0
50°	2206.9	2196.0	2201.4	2198.7	2190.5	2176.9	2160.5	2130.5	2075.9	1977.7	1835.9
52.5°	1865.9	1865.9	1863.2	1871.3	1874.1	1871.3	1874.1	1841.4	1795.0	1721.3	1601.3
55°	1511.2	1511.2	1519.5	1530.4	1541.3	1544.0	1541.3	1527.7	1494.9	1434.9	1328.5
57.5°	1178.4	1173.0	1189.4	1205.7	1216.7	1227.6	1219.4	1208.5	1189.4	1140.3	1058.4
60°	897.5	897.5	908.4	919.3	930.2	941.1	938.4	935.7	919.3	886.5	821.1
62.5°	660.1	662.9	662.9	671.1	682.0	692.9	701.1	692.9	684.7	662.9	619.2
65°	471.9	469.2	471.9	480.1	488.3	499.2	504.7	501.9	493.7	477.4	444.7
67.5°	316.5	313.7	324.6	327.3	332.8	343.8	341.0	343.8	341.0	327.3	300.1
70°	207.3	201.8	207.3	204.6	212.8	215.5	220.9	223.7	220.9	212.8	204.6
72.5°	128.2	125.5	128.2	131.0	133.7	136.4	141.8	141.8	139.1	133.7	122.8
75°	81.8	73.6	76.4	71.0	76.4	76.4	81.8	84.6	81.8	81.8	76.4
77.5°	49.1	49.1	49.1	49.1	49.1	49.1	49.1	51.9	54.5	49.1	46.4
80°	24.6	24.6	27.3	27.3	27.3	30.0	27.3	27.3	27.3	30.0	21.8
82.5°	19.1	16.4	16.4	16.4	19.1	16.4	16.4	16.4	16.4	16.4	16.4
85°	8.2	10.9	8.2	5.5	8.2	8.2	10.9	8.2	8.2	8.2	10.9
87.5°	2.7	2.7	0.0	0.0	0.0	2.7	0.0	2.7	2.7	5.5	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°	5139.4	5139.4	5139.4	5139.4	5139.4	5139.4	5139.4	5139.4	5139.4	5139.4	5139.4
2.5°	5153.1	5147.6	5147.6	5144.9	5150.3	5144.9	5147.6	5144.9	5144.9	5150.3	5144.9
5°	5172.2	5174.9	5169.4	5166.7	5174.9	5174.9	5174.9	5169.4	5169.4	5172.2	5169.4
7.5°	5199.5	5204.9	5207.6	5210.4	5215.8	5218.6	5218.6	5215.8	5213.1	5221.3	5210.4
10°	5229.4	5237.7	5254.0	5262.2	5275.8	5275.8	5281.3	5281.3	5275.8	5281.3	5278.6
12.5°	5218.6	5267.6	5294.9	5314.0	5333.1	5349.5	5354.9	5357.7	5354.9	5365.9	5354.9
15°	5237.7	5278.6	5322.2	5354.9	5390.4	5409.5	5414.9	5436.8	5442.2	5445.0	5428.6
17.5°	5207.6	5281.3	5327.6	5376.8	5428.6	5464.1	5496.8	5510.5	5513.2	5518.6	5496.8
20°	5139.4	5221.3	5292.2	5363.1	5423.1	5477.7	5505.0	5543.2	5532.3	5554.1	5524.1
22.5°	5046.7	5139.4	5229.4	5322.2	5385.0	5450.4	5507.7	5535.0	5548.6	5548.6	5515.9
25°	4899.4	5008.5	5106.7	5202.1	5297.7	5376.8	5442.2	5483.2	5491.4	5488.6	5450.4
27.5°	4670.2	4787.5	4902.1	5011.2	5128.5	5221.3	5297.7	5346.7	5360.4	5360.4	5319.5
30°	4353.8	4479.3	4591.1	4722.0	4842.1	4945.8	5052.2	5095.8	5120.3	5120.3	5074.0
32.5°	3977.3	4083.7	4187.4	4315.6	4446.6	4563.8	4664.8	4724.8	4754.8	4752.1	4711.1
35°	3568.2	3619.9	3699.1	3794.6	3911.8	4021.0	4119.2	4176.5	4228.3	4225.6	4187.4
37.5°	3158.9	3145.3	3153.5	3189.0	3262.6	3339.0	3415.4	3470.0	3513.6	3532.7	3524.5
40°	2758.0	2687.0	2618.8	2594.3	2599.7	2627.0	2667.9	2708.8	2758.0	2782.5	2793.4
42.5°	2397.9	2277.8	2157.8	2067.8	2015.9	1999.6	2018.7	2032.3	2062.3	2097.8	2133.3
45°	2108.7	1947.8	1789.5	1650.4	1563.1	1511.2	1500.4	1511.2	1527.7	1563.1	1609.5
47.5°	1871.3	1683.1	1505.8	1350.3	1222.1	1153.9	1134.8	1129.4	1145.7	1178.4	1241.2
50°	1661.3	1473.1	1276.7	1096.6	963.0	886.5	859.3	848.4	867.5	892.0	949.3
52.5°	1432.1	1246.7	1044.8	870.2	731.1	652.0	622.0	605.6	616.5	649.3	706.5
55°	1183.9	1012.0	829.3	649.3	515.6	441.9	406.4	395.5	406.4	441.9	499.2
57.5°	935.7	791.1	638.3	469.2	349.2	275.5	240.0	229.1	259.2	272.8	332.8
60°	731.1	613.8	482.9	343.8	240.0	182.8	147.3	139.1	152.8	177.3	226.4
62.5°	548.3	474.6	371.0	245.5	177.3	117.3	98.2	90.0	98.2	117.3	155.5
65°	398.3	341.0	259.2	180.0	120.0	87.3	65.5	60.0	68.2	81.8	114.6
67.5°	272.8	229.1	180.0	125.5	81.8	54.5	46.4	46.4	49.1	60.0	84.6
70°	177.3	150.0	114.6	81.8	54.5	40.9	35.4	30.0	35.4	43.7	57.3
72.5°	111.9	95.5	73.6	57.3	40.9	30.0	24.6	21.8	27.3	32.7	43.7
75°	68.2	51.9	38.2	30.0	21.8	21.8	21.8	10.9	13.6	21.8	27.3
77.5°	40.9	35.4	30.0	24.6	19.1	10.9	10.9	10.9	13.6	16.4	24.6
80°	21.8	19.1	13.6	13.6	10.9	8.2	10.9	8.2	5.5	13.6	16.4
82.5°	13.6	10.9	10.9	10.9	13.6	5.5	8.2	5.5	8.2	10.9	8.2
85°	8.2	8.2	8.2	5.5	13.6	5.5	5.5	2.7	2.7	5.5	5.5
87.5°	0.0	2.7	2.7	0.0	2.7	0.0	2.7	2.7	2.7	2.7	2.7
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	5139.4	5139.4	5139.4	5139.4	5139.4	5139.4	5139.4	5139.4	5139.4	5139.4	5139.4
2.5°	5147.6	5144.9	5147.6	5144.9	5144.9	5144.9	5147.6	5147.6	5144.9	5144.9	5150.3
5°	5169.4	5169.4	5169.4	5166.7	5164.0	5164.0	5169.4	5169.4	5161.2	5169.4	5169.4
7.5°	5215.8	5207.6	5215.8	5204.9	5199.5	5202.1	5204.9	5199.5	5194.0	5196.7	5196.7
10°	5275.8	5267.6	5267.6	5259.5	5251.3	5245.8	5240.4	5226.7	5213.1	5210.4	5199.5
12.5°	5346.7	5333.1	5325.0	5308.5	5294.9	5275.8	5259.5	5237.7	5210.4	5191.3	5172.2
15°	5417.7	5395.8	5376.8	5349.5	5319.5	5286.7	5251.3	5215.8	5172.2	5134.0	5101.2
17.5°	5474.9	5445.0	5409.5	5365.9	5322.2	5273.1	5221.3	5169.4	5106.7	5057.6	5019.4
20°	5494.0	5450.4	5404.1	5346.7	5289.5	5221.3	5155.8	5087.6	5016.7	4964.9	4921.2
22.5°	5469.5	5417.7	5360.4	5300.4	5224.0	5150.3	5074.0	4994.8	4932.1	4861.2	4820.3
25°	5401.3	5338.6	5275.8	5204.9	5131.3	5049.4	4967.6	4885.8	4809.3	4771.2	4719.4
27.5°	5262.2	5194.0	5125.8	5052.2	4967.6	4885.8	4801.2	4722.0	4656.6	4604.7	4574.8
30°	5016.7	4937.6	4858.5	4779.4	4705.7	4621.1	4542.0	4476.5	4411.0	4370.1	4340.2
32.5°	4640.2	4569.3	4490.2	4413.8	4345.6	4274.7	4209.2	4151.9	4105.5	4078.2	4056.4
35°	4132.8	4061.9	4001.9	3947.3	3890.0	3860.0	3819.1	3786.4	3767.3	3756.4	3753.6
37.5°	3494.5	3453.5	3434.5	3423.6	3412.6	3404.5	3409.9	3423.6	3434.5	3453.5	3475.4
40°	2812.5	2847.9	2858.9	2897.1	2932.5	2978.9	3030.8	3090.8	3139.8	3202.6	3246.2
42.5°	2190.5	2256.0	2332.4	2414.2	2501.5	2586.1	2689.7	2785.2	2872.5	2951.6	3019.8
45°	1683.1	1784.0	1898.6	2015.9	2133.3	2256.0	2381.5	2498.8	2602.4	2687.0	2758.0
47.5°	1312.1	1424.0	1571.3	1715.9	1857.7	2002.3	2141.4	2264.2	2351.5	2433.3	2496.0
50°	1039.3	1167.6	1328.5	1494.9	1650.4	1803.1	1950.4	2065.1	2152.4	2217.8	2264.2
52.5°	804.7	957.5	1121.2	1295.8	1462.2	1628.6	1765.0	1871.3	1942.3	1999.6	2035.0
55°	600.1	750.2	924.8	1104.8	1274.0	1434.9	1563.1	1655.9	1718.6	1751.3	1770.4
57.5°	433.7	570.2	744.7	924.8	1077.5	1230.3	1334.0	1418.5	1454.0	1473.1	1481.3
60°	316.5	441.9	597.4	752.9	897.5	1020.2	1110.3	1167.6	1194.9	1205.7	1203.0
62.5°	231.9	341.0	474.6	605.6	722.9	823.8	894.8	932.9	946.6	952.0	943.9
65°	177.3	261.9	376.5	477.4	567.4	641.0	692.9	717.5	725.6	722.9	717.5
67.5°	131.0	196.4	281.0	357.4	422.8	480.1	507.4	529.2	534.7	526.5	518.3
70°	92.8	144.6	204.6	256.4	305.5	338.3	368.3	371.0	371.0	368.3	362.8
72.5°	65.5	100.9	139.1	174.6	204.6	229.1	240.0	248.2	245.5	242.8	237.4
75°	43.7	62.7	100.9	109.1	136.4	144.6	155.5	155.5	158.2	150.0	150.0
77.5°	27.3	43.7	60.0	71.0	81.8	92.8	98.2	98.2	100.9	98.2	98.2
80°	16.4	27.3	32.7	49.1	49.1	57.3	60.0	62.7	57.3	65.5	57.3
82.5°	10.9	16.4	24.6	24.6	30.0	35.4	35.4	38.2	38.2	35.4	35.4
85°	8.2	10.9	13.6	16.4	16.4	19.1	16.4	16.4	19.1	21.8	19.1
87.5°	2.7	5.5	2.7	5.5	5.5	10.9	8.2	8.2	8.2	10.9	10.9
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: P248347

CATALOG NUMBER: LSR8B90D010 EC8B90835 8LBDW0LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	5139.4	5139.4	5139.4	5139.4
2.5°	5144.9	5147.6	5144.9	5144.9
5°	5169.4	5166.7	5169.4	5164.0
7.5°	5188.5	5188.5	5185.8	5185.8
10°	5188.5	5177.6	5177.6	5177.6
12.5°	5147.6	5134.0	5125.8	5120.3
15°	5076.7	5052.2	5041.2	5038.5
17.5°	4983.9	4962.1	4948.5	4940.3
20°	4877.5	4855.7	4839.4	4842.1
22.5°	4784.8	4760.3	4749.3	4743.9
25°	4692.1	4662.0	4653.9	4648.4
27.5°	4542.0	4525.7	4517.4	4509.3
30°	4312.9	4304.7	4291.0	4310.1
32.5°	4048.3	4034.6	4023.7	4031.9
35°	3756.4	3748.2	3756.4	3750.9
37.5°	3489.1	3497.2	3508.1	3513.6
40°	3279.0	3309.0	3319.9	3325.3
42.5°	3068.9	3104.4	3126.2	3139.8
45°	2809.8	2845.2	2869.8	2886.2
47.5°	2542.4	2572.5	2597.0	2594.3
50°	2299.7	2316.0	2326.9	2337.9
52.5°	2054.1	2054.1	2056.8	2056.8
55°	1775.9	1770.4	1767.7	1770.4
57.5°	1470.3	1464.9	1462.2	1454.0
60°	1192.1	1175.8	1164.8	1164.8
62.5°	932.9	913.8	905.7	903.0
65°	701.1	698.3	682.0	679.2
67.5°	507.4	496.5	485.6	488.3
70°	357.4	341.0	341.0	335.5
72.5°	231.9	223.7	220.9	220.9
75°	144.6	144.6	139.1	150.0
77.5°	95.5	95.5	92.8	95.5
80°	57.3	57.3	57.3	54.5
82.5°	35.4	38.2	35.4	35.4
85°	19.1	21.8	16.4	24.6
87.5°	10.9	13.6	10.9	13.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)