

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: P249256

Luminaire Tested: **LSR8B90D010 EC8B90935 8LBDW0WMH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P249256
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 EC8B90935 8LBDW0WMH
Description: PORTFOLIO 8 INCH DOUBLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT- CYLINDEC
90 CRI 3500 CCT WITH WARM HAZE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8110.0 lumens
Efficiency: N/A
Efficacy: 94.2 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

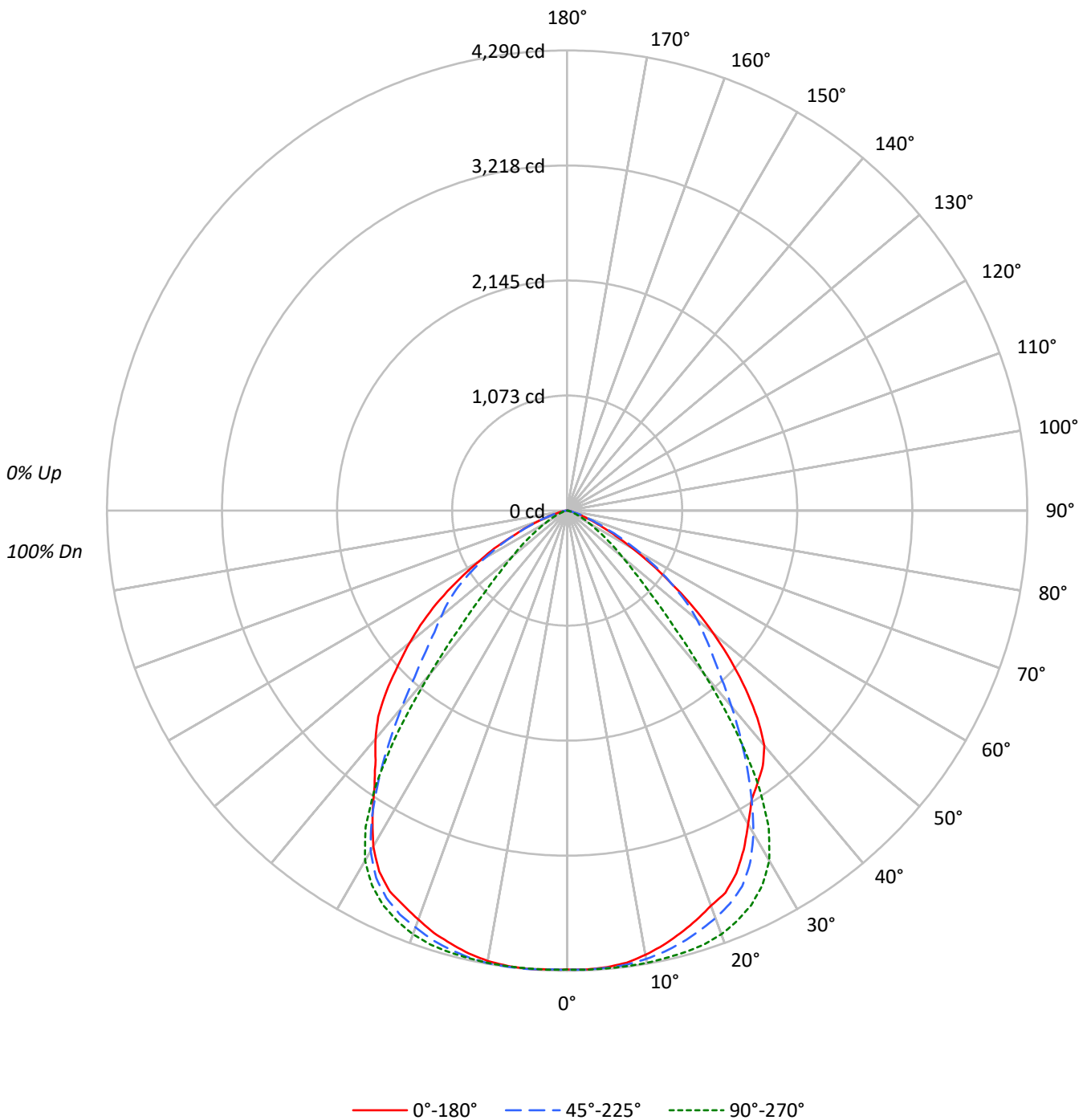
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	91	90
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70
4	89	80	72	67	87	78	72	66	76	70	66	74	69	65	72	67	64	62
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55
6	78	66	58	53	76	65	58	53	64	57	52	62	56	52	61	55	51	50
7	72	61	53	48	71	60	53	48	59	52	47	57	51	47	56	51	47	45
8	68	56	48	43	66	55	48	43	54	48	43	53	47	43	52	46	42	41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	131949	131949	131949
5°	132239	132595	132737
10°	131683	134056	133480
15°	130225	136016	133452
20°	128659	137929	133106
25°	126988	138087	133242
30°	120141	134205	128725
35°	116554	116637	117849
40°	115110	80250	111874
45°	102569	48179	103969
50°	85286	32065	91897
55°	63960	22107	77917
60°	43344	14734	58786
65°	26143	9551	40386
70°	14498	5175	24848
75°	6565	2192	12867
80°	5700	2451	8968
85°	6510	3255	8951



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	408.4	5.0
10°-20°	1186.0	14.6
20°-30°	1800.1	22.2
30°-40°	1890.6	23.3
40°-50°	1417.5	17.5
50°-60°	909.5	11.2
60°-70°	389.1	4.8
70°-80°	91.9	1.1
80°-90°	17.1	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°	3394.4	41.9
0°-40°	5285.0	65.2
0°-60°	7611.9	93.9
0°-90°	8110.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8110.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4279	4279	4279	4279	4279	
5°	4272	4279	4284	4290	4288	406
15°	4079	4164	4261	4233	4180	1151
25°	3732	3863	4058	3985	3916	1705
35°	3096	2924	3098	3062	3131	1943
45°	2352	1922	1105	1867	2384	1801
55°	1190	1190	411	1240	1449	1079
65°	358	423	131	544	554	382
75°	55	64	18	110	108	80
85°	18	12	9	18	25	19
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°	4279.0	4279.0	4279.0	4279.0	4279.0	4279.0	4279.0	4279.0	4279.0	4279.0	4279.0
2.5°	4281.3	4285.9	4283.6	4283.6	4281.3	4283.6	4283.6	4288.2	4288.2	4283.6	4281.3
5°	4272.1	4276.7	4276.7	4272.1	4272.1	4283.6	4276.7	4281.3	4281.3	4279.0	4279.0
7.5°	4251.5	4251.5	4260.6	4253.8	4253.8	4260.6	4258.3	4262.9	4267.5	4269.8	4269.8
10°	4205.5	4210.1	4212.4	4212.4	4214.7	4221.6	4226.2	4235.4	4239.9	4244.5	4246.8
12.5°	4148.1	4155.0	4157.3	4155.0	4161.9	4171.0	4182.6	4194.0	4200.9	4210.1	4217.0
15°	4079.2	4079.2	4083.8	4090.7	4095.3	4109.0	4120.5	4134.3	4152.7	4164.2	4175.6
17.5°	4003.4	4008.0	4014.9	4014.9	4024.1	4047.0	4053.9	4074.6	4095.3	4106.7	4129.7
20°	3920.7	3925.3	3932.2	3936.8	3948.3	3966.6	3980.4	3998.8	4021.8	4042.4	4065.4
22.5°	3856.4	3847.2	3851.8	3856.4	3867.9	3884.0	3900.0	3923.0	3946.0	3966.6	3989.6
25°	3732.3	3734.6	3741.6	3746.1	3759.9	3773.7	3792.1	3819.6	3840.3	3863.3	3888.5
27.5°	3564.7	3567.0	3578.5	3578.5	3589.9	3612.9	3624.4	3647.4	3675.0	3697.9	3727.8
30°	3374.1	3378.6	3378.6	3387.8	3394.7	3406.2	3417.7	3440.7	3454.4	3475.1	3516.5
32.5°	3199.5	3204.1	3201.8	3199.5	3192.6	3190.3	3188.0	3192.6	3197.2	3204.1	3220.1
35°	3096.2	3084.6	3075.5	3059.4	3041.0	3018.0	2997.4	2969.8	2944.5	2923.9	2900.9
37.5°	2997.4	2995.1	2981.3	2958.3	2921.5	2880.2	2832.0	2772.3	2712.5	2648.2	2586.3
40°	2859.6	2852.6	2841.2	2809.0	2767.7	2717.1	2652.9	2579.3	2482.9	2384.1	2283.1
42.5°	2625.3	2627.6	2613.8	2588.5	2549.5	2501.2	2434.6	2354.3	2250.9	2133.7	2002.8
45°	2352.0	2352.0	2347.4	2326.7	2299.1	2260.1	2209.6	2143.0	2041.9	1922.4	1782.3
47.5°	2067.1	2069.4	2062.5	2058.0	2046.5	2021.2	1984.5	1933.9	1862.7	1747.9	1607.8
50°	1777.8	1777.8	1789.2	1786.9	1786.9	1777.8	1761.7	1731.8	1669.8	1577.9	1447.0
52.5°	1488.3	1492.9	1499.9	1509.0	1520.5	1538.9	1520.5	1506.7	1467.7	1396.5	1283.9
55°	1189.7	1194.4	1205.8	1221.9	1235.7	1254.1	1258.7	1258.7	1238.0	1189.7	1104.8
57.5°	934.8	927.9	937.1	950.9	969.3	987.7	1001.4	1017.5	1015.2	983.0	914.1
60°	702.8	705.1	712.0	725.8	739.6	755.7	774.0	787.8	794.7	778.6	735.0
62.5°	512.2	512.2	521.4	535.1	542.0	565.0	576.5	583.4	590.3	588.0	560.4
65°	358.3	362.9	367.5	374.4	381.3	395.0	401.9	415.7	420.3	422.6	401.9
67.5°	252.7	245.8	250.4	254.9	261.8	271.1	284.8	284.8	291.7	291.7	277.9
70°	160.8	160.8	163.1	169.9	174.6	176.9	181.5	186.0	192.9	190.6	190.6
72.5°	108.0	105.7	108.0	110.3	112.6	119.4	119.4	121.7	126.3	128.6	119.4
75°	55.1	57.4	62.0	59.7	66.6	62.0	64.3	71.2	68.9	64.3	64.3
77.5°	45.9	45.9	45.9	43.7	48.2	48.2	45.9	50.5	48.2	48.2	45.9
80°	32.1	34.5	32.1	29.8	32.1	29.8	29.8	29.8	29.8	29.8	27.5
82.5°	25.3	20.7	23.0	20.7	23.0	23.0	20.7	18.4	18.4	20.7	18.4
85°	18.4	13.8	16.1	16.1	13.8	13.8	13.8	13.8	13.8	11.5	11.5
87.5°	11.5	6.9	6.9	6.9	9.2	9.2	9.2	6.9	9.2	9.2	4.6
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4279.0	4279.0	4279.0	4279.0	4279.0	4279.0	4279.0	4279.0	4279.0	4279.0	4279.0
2.5°	4285.9	4283.6	4288.2	4285.9	4285.9	4283.6	4285.9	4283.6	4288.2	4279.0	4281.3
5°	4285.9	4281.3	4283.6	4285.9	4288.2	4283.6	4283.6	4283.6	4288.2	4283.6	4285.9
7.5°	4276.7	4274.4	4281.3	4285.9	4283.6	4281.3	4285.9	4283.6	4288.2	4285.9	4290.5
10°	4258.3	4260.6	4265.2	4272.1	4274.4	4276.7	4281.3	4281.3	4288.2	4279.0	4283.6
12.5°	4230.8	4239.9	4251.5	4256.0	4265.2	4265.2	4269.8	4272.1	4276.7	4274.4	4281.3
15°	4196.3	4207.8	4221.6	4233.1	4244.5	4251.5	4258.3	4260.6	4267.5	4260.6	4262.9
17.5°	4155.0	4168.7	4189.4	4203.2	4221.6	4228.5	4237.6	4242.2	4249.2	4244.5	4246.8
20°	4097.5	4113.7	4136.6	4157.3	4168.7	4184.8	4196.3	4203.2	4207.8	4203.2	4205.5
22.5°	4017.2	4040.1	4070.0	4086.1	4109.0	4122.8	4125.1	4141.2	4152.7	4141.2	4145.8
25°	3923.0	3946.0	3968.9	4003.4	4024.1	4040.1	4056.2	4058.5	4070.0	4067.7	4065.4
27.5°	3766.8	3796.7	3835.7	3863.3	3890.8	3916.1	3934.5	3939.0	3950.6	3946.0	3948.3
30°	3553.2	3585.4	3622.1	3665.7	3704.8	3730.0	3753.0	3769.1	3780.6	3773.7	3771.4
32.5°	3250.0	3282.2	3321.2	3364.9	3410.8	3447.5	3475.1	3495.8	3509.6	3505.0	3493.5
35°	2903.2	2912.4	2937.7	2972.1	3011.1	3050.2	3075.5	3098.4	3114.5	3119.1	3119.1
37.5°	2547.2	2517.4	2499.0	2499.0	2521.9	2538.0	2561.0	2574.7	2600.0	2609.2	2616.1
40°	2202.6	2133.7	2069.4	2021.2	1989.1	1986.8	1986.8	1993.6	2016.6	2046.5	2074.1
42.5°	1894.9	1784.6	1685.9	1596.3	1532.0	1495.3	1479.2	1481.5	1499.9	1527.4	1573.3
45°	1649.1	1511.3	1387.3	1279.3	1192.1	1134.6	1107.1	1104.8	1118.5	1150.7	1201.3
47.5°	1458.5	1311.5	1171.4	1047.3	953.2	891.2	859.0	849.9	859.0	888.9	948.6
50°	1300.0	1148.4	1003.7	875.1	774.0	709.7	679.8	668.4	679.8	705.1	764.8
52.5°	1153.0	996.8	861.3	737.3	629.3	574.2	542.0	535.1	542.0	571.9	620.2
55°	983.0	849.9	716.6	592.6	498.4	443.3	418.0	411.2	418.0	445.6	496.1
57.5°	815.4	700.5	583.4	470.8	390.5	342.2	319.3	310.1	326.1	344.5	404.2
60°	659.2	567.3	468.5	369.8	303.2	259.5	241.2	238.9	243.5	266.4	307.8
62.5°	516.8	441.0	362.9	282.5	227.4	209.0	186.0	183.8	188.3	202.1	234.3
65°	372.1	323.9	264.1	206.7	163.1	137.8	128.6	130.9	135.5	144.7	174.6
67.5°	259.5	225.1	183.8	144.7	112.6	101.0	91.9	89.6	91.9	108.0	124.0
70°	174.6	153.9	124.0	110.3	78.1	62.0	64.3	57.4	66.6	66.6	80.4
72.5°	114.8	101.0	82.7	64.3	55.1	43.7	43.7	41.4	45.9	48.2	59.7
75°	59.7	45.9	45.9	32.1	23.0	11.5	20.7	18.4	16.1	18.4	23.0
77.5°	41.4	34.5	32.1	25.3	23.0	18.4	18.4	18.4	18.4	20.7	23.0
80°	25.3	25.3	18.4	16.1	13.8	11.5	13.8	13.8	13.8	13.8	16.1
82.5°	16.1	13.8	13.8	11.5	11.5	9.2	9.2	9.2	9.2	9.2	13.8
85°	13.8	9.2	9.2	6.9	9.2	16.1	6.9	9.2	9.2	9.2	6.9
87.5°	4.6	6.9	6.9	6.9	4.6	2.3	4.6	6.9	6.9	11.5	9.2
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°	4279.0	4279.0	4279.0	4279.0	4279.0	4279.0	4279.0	4279.0	4279.0	4279.0	4279.0
2.5°	4285.9	4288.2	4288.2	4285.9	4285.9	4281.3	4290.5	4283.6	4285.9	4295.1	4288.2
5°	4290.5	4292.8	4292.8	4290.5	4290.5	4290.5	4292.8	4292.8	4290.5	4288.2	4292.8
7.5°	4299.7	4297.4	4297.4	4292.8	4292.8	4288.2	4292.8	4285.9	4290.5	4285.9	4292.8
10°	4288.2	4290.5	4288.2	4285.9	4285.9	4283.6	4283.6	4276.7	4279.0	4272.1	4276.7
12.5°	4281.3	4279.0	4279.0	4274.4	4269.8	4265.2	4262.9	4256.0	4256.0	4239.9	4246.8
15°	4262.9	4265.2	4258.3	4249.2	4244.5	4233.1	4228.5	4219.3	4210.1	4198.6	4200.9
17.5°	4246.8	4239.9	4230.8	4221.6	4203.2	4194.0	4184.8	4171.0	4166.4	4152.7	4148.1
20°	4198.6	4194.0	4182.6	4166.4	4155.0	4134.3	4125.1	4111.4	4099.8	4086.1	4079.2
22.5°	4136.6	4132.0	4118.2	4102.1	4083.8	4074.6	4065.4	4040.1	4028.6	4014.9	4012.6
25°	4058.5	4051.6	4037.8	4019.5	4010.2	3985.0	3975.8	3957.4	3952.9	3939.0	3936.8
27.5°	3939.0	3929.9	3913.8	3890.8	3874.8	3858.7	3849.5	3835.7	3831.1	3817.3	3815.1
30°	3759.9	3748.4	3716.3	3707.1	3679.5	3663.4	3663.4	3645.1	3647.4	3638.2	3638.2
32.5°	3477.4	3459.0	3433.8	3415.4	3397.0	3387.8	3387.8	3380.9	3385.5	3385.5	3390.1
35°	3103.0	3077.8	3064.0	3052.5	3052.5	3061.7	3089.2	3096.2	3109.9	3121.4	3130.6
37.5°	2623.0	2620.7	2636.8	2650.6	2685.0	2724.1	2772.3	2813.6	2852.6	2880.2	2907.8
40°	2103.9	2161.3	2207.2	2271.6	2324.4	2400.2	2487.5	2558.7	2625.3	2673.5	2724.1
42.5°	1642.2	1715.7	1812.2	1906.4	2000.5	2103.9	2218.8	2317.5	2404.8	2471.4	2524.2
45°	1279.3	1380.4	1497.6	1617.0	1738.7	1867.3	1986.8	2087.8	2179.7	2248.6	2301.4
47.5°	1031.3	1141.5	1274.7	1405.7	1543.5	1679.0	1812.2	1899.5	1975.3	2030.4	2078.7
50°	852.1	969.3	1109.4	1258.7	1396.5	1532.0	1646.8	1731.8	1793.8	1842.1	1871.9
52.5°	712.0	836.0	985.4	1134.6	1272.4	1396.5	1499.9	1564.2	1614.7	1649.1	1676.7
55°	588.0	707.4	847.5	987.7	1123.2	1240.3	1325.2	1373.5	1412.5	1433.2	1449.3
57.5°	480.1	590.3	718.9	847.5	964.7	1061.2	1127.8	1176.0	1194.4	1210.4	1208.1
60°	376.7	480.1	597.2	707.4	808.5	886.6	934.8	962.4	976.1	983.0	978.4
62.5°	296.3	390.5	480.1	576.5	650.0	716.6	762.6	762.6	769.4	771.7	778.6
65°	220.5	291.7	369.8	441.0	500.7	544.4	569.6	576.5	585.7	583.4	578.8
67.5°	163.1	215.9	273.3	326.1	367.5	395.0	413.4	429.5	427.2	422.6	420.3
70°	112.6	147.0	197.5	229.7	259.5	287.1	291.7	294.0	296.3	298.6	294.0
72.5°	78.1	103.4	130.9	158.5	176.9	188.3	199.8	202.1	202.1	202.1	199.8
75°	39.1	52.8	78.1	89.6	105.7	110.3	119.4	119.4	126.3	117.1	114.8
77.5°	34.5	41.4	55.1	64.3	71.2	78.1	80.4	87.3	85.0	80.4	82.7
80°	20.7	25.3	34.5	39.1	48.2	50.5	52.8	55.1	52.8	55.1	55.1
82.5°	16.1	18.4	23.0	23.0	29.8	29.8	32.1	32.1	34.5	34.5	34.5
85°	9.2	16.1	13.8	27.5	18.4	18.4	23.0	27.5	23.0	23.0	27.5
87.5°	9.2	9.2	6.9	9.2	9.2	9.2	11.5	13.8	13.8	16.1	13.8
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: P249256

CATALOG NUMBER: LSR8B90D010 EC8B90935 8LBDW0WMH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	4279.0	4279.0	4279.0	4279.0
2.5°	4285.9	4290.5	4283.6	4281.3
5°	4292.8	4292.8	4288.2	4288.2
7.5°	4292.8	4292.8	4285.9	4281.3
10°	4274.4	4274.4	4267.5	4262.9
12.5°	4239.9	4239.9	4237.6	4230.8
15°	4196.3	4196.3	4187.1	4180.3
17.5°	4136.6	4141.2	4129.7	4129.7
20°	4072.3	4070.0	4060.8	4056.2
22.5°	4005.7	4001.1	3998.8	3985.0
25°	3934.5	3929.9	3923.0	3916.1
27.5°	3812.8	3810.5	3803.5	3794.4
30°	3626.7	3624.4	3615.2	3615.2
32.5°	3385.5	3383.2	3374.1	3376.4
35°	3135.2	3144.4	3139.8	3130.6
37.5°	2926.2	2933.1	2937.7	2933.1
40°	2751.6	2772.3	2774.6	2779.2
42.5°	2565.6	2593.1	2602.3	2606.9
45°	2342.7	2368.0	2388.7	2384.1
47.5°	2115.4	2133.7	2152.1	2138.3
50°	1897.2	1908.7	1915.6	1915.6
52.5°	1690.5	1690.5	1688.2	1690.5
55°	1453.9	1453.9	1444.7	1449.3
57.5°	1205.8	1210.4	1203.5	1192.1
60°	976.1	964.7	960.1	953.2
62.5°	760.3	760.3	744.2	764.8
65°	569.6	562.7	555.8	553.5
67.5°	413.4	411.2	404.2	401.9
70°	291.7	282.5	280.2	275.6
72.5°	195.2	195.2	190.6	190.6
75°	119.4	108.0	105.7	108.0
77.5°	82.7	80.4	80.4	78.1
80°	55.1	52.8	57.4	50.5
82.5°	34.5	36.8	34.5	36.8
85°	23.0	27.5	25.3	25.3
87.5°	13.8	13.8	13.8	13.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)