

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: P248770

Luminaire Tested: **LD8B90D010 ER8B90830 8LBSW0GPH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P248770
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13958)
Test Lab: INNOVATION CENTER-P1
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD8B90D010 ER8B90830 8LBSW0GPH
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT
80 CRI 3000 CCT WITH GRAPHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8390.0 lumens
Efficiency: N/A
Efficacy: 97.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.23 / 1.15
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

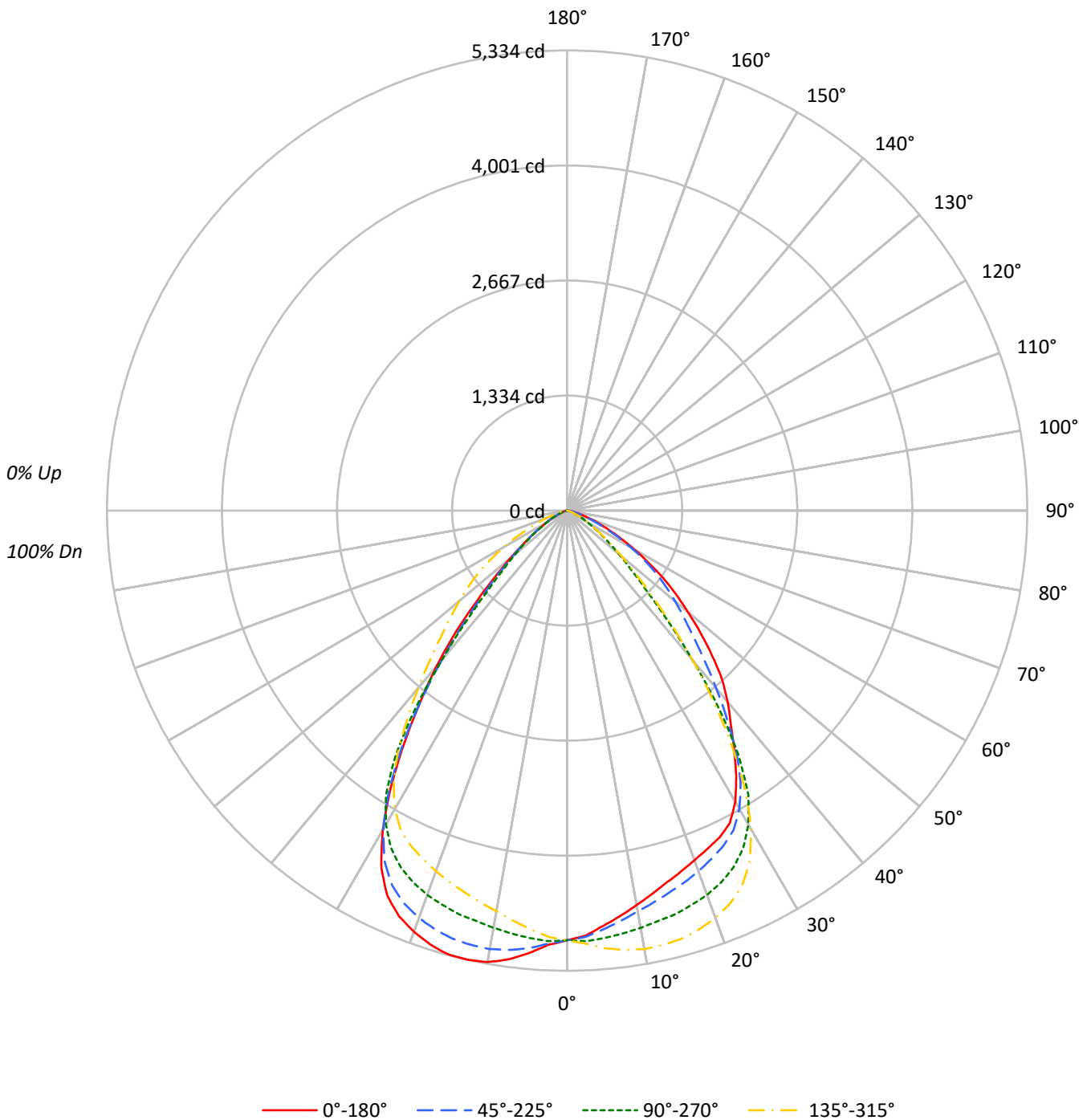
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	106	103	109	106	104	101	102	100	98	99	97	95	95	94	92	90
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81
3	98	90	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	72
4	91	82	75	70	89	80	74	69	78	73	68	76	71	67	74	70	67	65
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	55	53
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48
8	70	59	51	46	69	58	51	46	57	50	46	56	50	46	55	49	46	44
9	66	54	47	42	65	54	47	42	53	47	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	44	39	49	43	39	48	43	39	48	42	39	37

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	153593	153593	153593	153593
5°	149511	153953	159451	153953
10°	145375	153751	166392	153751
15°	142471	154663	170034	154663
20°	141503	155548	170472	155548
25°	142245	155235	167732	155235
30°	138727	149555	152240	149555
35°	126895	130463	123782	130463
40°	116503	90753	94770	90753
45°	103515	55362	64062	55362
50°	87618	36982	41070	36982
55°	72567	25236	26671	25236
60°	55351	16800	16948	16800
65°	39219	10470	9580	10470
70°	28283	7014	6365	7014
75°	17967	3479	2895	3479
80°	12537	2593	2149	2593
85°	11180	0	849	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	474.1	5.7
10°-20°	1372.9	16.4
20°-30°	2078.8	24.8
30°-40°	2083.5	24.8
40°-50°	1308.3	15.6
50°-60°	697.2	8.3
60°-70°	286.7	3.4
70°-80°	75.7	0.9
80°-90°	12.8	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°	3925.8	46.8
0°-40°	6009.2	71.6
0°-60°	8014.7	95.5
0°-90°	8390.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8390.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4981	4981	4981	4981	4981	
5°	4830	4974	5151	4974	4830	455
15°	4463	4845	5326	4845	4463	1262
25°	4181	4562	4930	4562	4181	1917
35°	3371	3466	3288	3466	3371	2112
45°	2374	1270	1469	1270	2374	1826
55°	1350	469	496	469	1350	1203
65°	538	144	131	144	538	558
75°	151	29	24	29	151	171
85°	32	0	2	0	32	35
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°	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9
2.5°	4929.8	4924.9	4922.5	4927.4	4929.8	4939.5	4937.1	4941.9	4941.9	4944.4	4949.2
5°	4830.1	4827.6	4830.1	4830.1	4839.8	4849.5	4847.1	4854.4	4859.2	4871.5	4876.3
7.5°	4737.7	4737.7	4735.2	4744.9	4749.8	4764.4	4761.9	4774.2	4781.5	4793.6	4810.6
10°	4642.8	4642.8	4645.2	4652.5	4655.0	4676.9	4676.9	4693.9	4703.6	4715.8	4737.7
12.5°	4550.4	4550.4	4565.0	4560.1	4569.8	4586.9	4594.2	4611.2	4625.8	4650.1	4672.1
15°	4462.8	4462.8	4467.7	4479.8	4487.2	4509.1	4521.2	4540.7	4557.7	4582.1	4613.7
17.5°	4387.4	4385.0	4387.4	4402.1	4416.7	4436.1	4445.8	4470.1	4487.2	4518.8	4548.0
20°	4312.1	4317.0	4317.0	4329.1	4338.8	4363.1	4372.8	4399.7	4419.1	4448.2	4482.3
22.5°	4246.4	4244.0	4244.0	4261.0	4268.3	4290.1	4299.9	4324.2	4346.1	4370.4	4402.1
25°	4180.7	4175.8	4185.6	4188.0	4192.8	4217.2	4224.5	4241.5	4263.4	4285.3	4317.0
27.5°	4083.4	4078.6	4081.0	4090.7	4098.0	4117.5	4122.4	4139.4	4156.4	4175.8	4202.7
30°	3896.1	3891.3	3888.9	3905.9	3913.2	3927.8	3935.1	3964.3	3969.1	3991.0	4010.4
32.5°	3648.1	3645.7	3650.6	3665.1	3672.4	3691.9	3701.6	3718.6	3730.8	3743.0	3762.4
35°	3370.9	3366.0	3370.9	3385.5	3385.5	3402.5	3409.8	3417.0	3414.6	3417.0	3412.2
37.5°	3113.1	3110.6	3113.1	3120.3	3113.1	3120.3	3113.1	3098.5	3071.8	3042.5	3013.3
40°	2894.2	2896.6	2882.1	2891.8	2864.9	2860.1	2833.4	2796.9	2743.4	2685.0	2602.4
42.5°	2660.7	2653.4	2643.7	2648.5	2626.7	2609.6	2565.8	2519.7	2451.5	2354.3	2254.5
45°	2373.7	2371.3	2366.4	2364.0	2349.4	2332.4	2295.8	2242.4	2167.0	2067.3	1948.1
47.5°	2094.0	2086.7	2086.7	2089.1	2072.1	2069.7	2040.5	1994.3	1928.6	1831.3	1707.3
50°	1826.4	1824.0	1828.9	1838.6	1826.4	1821.6	1802.2	1770.6	1712.2	1629.5	1512.7
52.5°	1585.7	1583.3	1588.2	1600.3	1595.4	1600.3	1580.9	1556.5	1517.6	1437.3	1335.2
55°	1349.8	1349.8	1349.8	1364.3	1364.3	1364.3	1354.6	1340.1	1303.6	1245.2	1150.4
57.5°	1104.2	1106.6	1121.2	1123.6	1121.2	1126.1	1123.6	1109.0	1084.7	1043.4	970.4
60°	897.5	897.5	904.8	912.1	909.6	912.1	912.1	904.8	880.4	846.4	788.0
62.5°	710.2	717.5	712.6	717.5	727.2	717.5	712.6	707.7	690.7	668.8	620.2
65°	537.5	542.4	542.4	544.8	539.9	542.4	532.7	525.4	515.6	491.3	459.7
67.5°	408.6	408.6	408.6	408.6	406.1	403.7	401.3	394.0	377.0	367.3	333.2
70°	313.7	299.1	299.1	299.1	299.1	301.6	294.3	284.6	279.7	262.7	238.4
72.5°	209.1	214.0	209.1	209.1	204.3	206.7	197.0	192.1	187.3	177.6	163.0
75°	150.8	138.6	143.5	146.0	138.6	143.5	133.7	124.0	124.0	116.7	109.4
77.5°	97.3	94.9	97.3	99.7	97.3	94.9	90.0	85.1	85.1	82.7	75.4
80°	70.6	68.1	68.1	68.1	65.7	68.1	63.3	63.3	58.4	56.0	51.1
82.5°	46.2	46.2	43.7	46.2	43.7	46.2	38.9	38.9	38.9	36.4	31.6
85°	31.6	26.7	26.7	29.2	24.3	29.2	26.7	24.3	21.9	21.9	19.4
87.5°	14.6	17.0	14.6	17.0	14.6	14.6	17.0	14.6	14.6	9.7	9.7
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°	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9
2.5°	4956.6	4959.0	4959.0	4968.8	4973.6	4976.0	4976.0	4995.5	4988.2	4993.1	4997.9
5°	4886.1	4900.6	4905.5	4905.5	4932.2	4941.9	4951.6	4973.6	4976.0	4990.6	5007.6
7.5°	4817.9	4834.9	4844.7	4866.6	4883.6	4900.6	4929.8	4944.4	4959.0	4978.5	5000.3
10°	4752.2	4771.8	4791.2	4808.2	4834.9	4856.8	4876.3	4910.3	4927.4	4954.1	4983.3
12.5°	4689.1	4715.8	4732.8	4761.9	4791.2	4810.6	4839.8	4871.5	4898.2	4924.9	4959.0
15°	4633.1	4664.7	4684.2	4715.8	4747.4	4774.2	4805.8	4844.7	4864.2	4895.8	4927.4
17.5°	4572.2	4606.4	4630.7	4659.8	4698.8	4727.9	4754.7	4793.6	4817.9	4851.9	4888.5
20°	4509.1	4543.1	4572.2	4601.5	4640.4	4669.5	4701.2	4740.1	4766.9	4800.9	4830.1
22.5°	4433.7	4465.3	4496.9	4530.9	4569.8	4594.2	4630.7	4664.7	4693.9	4725.5	4754.7
25°	4336.4	4375.3	4399.7	4431.2	4462.8	4489.6	4528.5	4562.5	4586.9	4616.1	4642.8
27.5°	4222.1	4251.3	4270.7	4297.5	4329.1	4353.4	4382.5	4416.7	4441.0	4467.7	4487.2
30°	4027.5	4054.3	4071.3	4090.7	4122.4	4144.3	4168.6	4200.2	4217.2	4236.7	4253.7
32.5°	3772.1	3794.0	3803.7	3818.3	3840.3	3862.1	3881.6	3908.3	3915.6	3927.8	3927.8
35°	3402.5	3407.3	3404.9	3409.8	3419.5	3431.6	3448.7	3465.7	3475.4	3475.4	3468.2
37.5°	2969.5	2940.4	2908.8	2884.5	2877.1	2872.2	2882.1	2889.3	2899.1	2903.9	2891.8
40°	2519.7	2454.0	2383.4	2320.2	2276.4	2257.0	2249.7	2254.5	2254.5	2271.5	2271.5
42.5°	2133.0	2030.8	1926.2	1831.3	1768.1	1719.5	1697.6	1697.6	1700.0	1712.2	1719.5
45°	1811.9	1683.0	1561.4	1456.8	1369.3	1306.0	1276.9	1269.5	1267.1	1271.9	1289.0
47.5°	1566.3	1432.5	1306.0	1177.1	1084.7	1021.5	994.8	984.9	975.2	984.9	987.4
50°	1374.2	1235.5	1101.8	972.8	875.5	819.6	785.5	770.9	768.5	768.5	773.4
52.5°	1199.0	1070.1	936.4	805.1	702.8	649.4	617.8	610.4	600.7	610.4	610.4
55°	1033.6	904.8	773.4	649.4	564.2	508.3	479.1	469.4	464.5	471.8	471.8
57.5°	853.7	744.2	622.7	510.7	425.7	386.7	364.8	352.7	350.2	355.1	350.2
60°	700.4	608.0	503.4	401.3	335.7	294.3	277.3	272.4	267.5	272.4	272.4
62.5°	554.5	476.7	391.5	313.7	257.8	228.6	209.1	209.1	206.7	206.7	209.1
65°	411.0	350.2	289.4	223.7	180.0	158.1	143.5	143.5	141.0	143.5	141.0
67.5°	299.1	257.8	209.1	163.0	128.9	116.7	107.0	99.7	104.6	99.7	97.3
70°	218.9	184.8	150.8	124.0	99.7	87.6	80.3	77.8	73.0	73.0	73.0
72.5°	146.0	124.0	102.1	80.3	65.7	53.5	51.1	46.2	41.3	43.7	48.7
75°	97.3	82.7	73.0	58.4	43.7	43.7	29.2	29.2	24.3	29.2	21.9
77.5°	68.1	56.0	43.7	36.4	29.2	26.7	19.4	19.4	17.0	17.0	17.0
80°	48.7	41.3	31.6	26.7	19.4	19.4	17.0	14.6	12.1	12.1	14.6
82.5°	29.2	21.9	21.9	19.4	12.1	9.7	7.3	9.7	4.9	4.9	4.9
85°	17.0	14.6	12.1	7.3	4.9	4.9	2.4	0.0	2.4	2.4	0.0
87.5°	9.7	4.9	4.9	2.4	0.0	2.4	2.4	0.0	0.0	0.0	4.9
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°	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9
2.5°	5010.1	5007.6	5012.5	5012.5	5027.1	5024.6	5031.9	5031.9	5027.1	5029.5	5039.2
5°	5027.1	5034.4	5048.9	5061.2	5083.0	5092.8	5104.9	5117.1	5119.5	5126.8	5134.1
7.5°	5027.1	5051.5	5068.5	5090.3	5119.5	5136.5	5163.3	5185.2	5194.9	5207.0	5221.6
10°	5017.3	5041.6	5073.3	5097.6	5134.1	5160.9	5187.6	5221.6	5236.2	5255.7	5275.2
12.5°	4997.9	5024.6	5058.7	5090.3	5131.6	5156.0	5190.0	5221.6	5243.6	5270.3	5292.2
15°	4968.8	5000.3	5031.9	5063.6	5107.3	5136.5	5168.2	5204.6	5226.5	5255.7	5275.2
17.5°	4922.5	4956.6	4985.8	5014.9	5056.3	5090.3	5119.5	5153.6	5175.5	5199.8	5226.5
20°	4866.6	4898.2	4929.8	4954.1	4995.5	5024.6	5056.3	5087.9	5104.9	5109.8	5151.2
22.5°	4796.1	4817.9	4842.2	4881.2	4905.5	4932.2	4961.5	4990.6	5007.6	5034.4	5048.9
25°	4679.3	4701.2	4727.9	4744.9	4774.2	4796.1	4825.2	4856.8	4866.6	4886.1	4900.6
27.5°	4516.4	4528.5	4540.7	4555.2	4572.2	4584.5	4601.5	4616.1	4625.8	4635.5	4645.2
30°	4258.5	4258.5	4258.5	4248.8	4256.1	4263.4	4265.8	4263.4	4263.4	4261.0	4261.0
32.5°	3918.1	3898.6	3876.7	3857.3	3850.0	3840.3	3835.4	3828.1	3815.9	3808.6	3811.0
35°	3458.4	3414.6	3387.9	3363.6	3344.1	3329.5	3322.2	3314.9	3312.5	3302.8	3293.0
37.5°	2884.5	2852.8	2833.4	2818.8	2801.8	2787.2	2789.6	2792.1	2799.3	2794.5	2796.9
40°	2276.4	2269.1	2276.4	2259.4	2254.5	2259.4	2271.5	2288.6	2298.3	2308.0	2325.1
42.5°	1731.6	1743.7	1760.9	1760.9	1768.1	1777.9	1792.4	1819.2	1833.7	1850.8	1870.3
45°	1303.6	1318.2	1340.1	1347.3	1352.2	1364.3	1381.5	1403.3	1413.0	1427.6	1444.6
47.5°	1004.5	1014.2	1026.3	1038.5	1050.6	1055.5	1072.5	1072.5	1084.7	1094.5	1099.3
50°	783.1	792.8	802.6	809.9	814.8	822.1	826.9	834.2	836.6	841.5	843.9
52.5°	612.8	625.1	625.1	629.9	637.2	644.5	642.1	644.5	646.9	646.9	654.2
55°	479.1	479.1	486.4	486.4	491.3	488.8	491.3	491.3	491.3	491.3	493.7
57.5°	357.5	360.0	367.3	362.4	360.0	364.8	360.0	364.8	362.4	367.3	360.0
60°	274.8	274.8	277.3	277.3	279.7	279.7	279.7	277.3	277.3	274.8	274.8
62.5°	206.7	209.1	211.6	209.1	209.1	209.1	206.7	206.7	204.3	201.8	201.8
65°	138.6	136.2	141.0	136.2	138.6	138.6	136.2	138.6	131.3	133.7	131.3
67.5°	99.7	97.3	94.9	97.3	94.9	92.4	92.4	94.9	97.3	90.0	90.0
70°	65.7	68.1	65.7	68.1	70.6	70.6	68.1	65.7	68.1	63.3	65.7
72.5°	41.3	41.3	41.3	41.3	41.3	43.7	43.7	43.7	38.9	38.9	36.4
75°	19.4	26.7	21.9	19.4	26.7	26.7	24.3	24.3	21.9	21.9	21.9
77.5°	19.4	14.6	14.6	14.6	14.6	14.6	14.6	14.6	12.1	14.6	12.1
80°	9.7	9.7	9.7	7.3	9.7	9.7	12.1	9.7	9.7	7.3	12.1
82.5°	4.9	4.9	4.9	0.0	2.4	4.9	4.9	2.4	4.9	4.9	2.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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



TEST NUMBER: P248770

CATALOG NUMBER: LD8B90D010 ER8B90830 8LBSW0GPH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9
2.5°	5036.8	5034.4	5036.8	5039.2	5036.8	5034.4	5036.8	5039.2	5029.5	5027.1	5031.9
5°	5143.8	5143.8	5148.7	5151.2	5148.7	5143.8	5143.8	5134.1	5126.8	5119.5	5117.1
7.5°	5236.2	5241.2	5246.0	5248.4	5246.0	5241.2	5236.2	5221.6	5207.0	5194.9	5185.2
10°	5292.2	5299.5	5309.2	5314.0	5309.2	5299.5	5292.2	5275.2	5255.7	5236.2	5221.6
12.5°	5316.5	5323.8	5336.0	5333.6	5336.0	5323.8	5316.5	5292.2	5270.3	5243.6	5221.6
15°	5299.5	5309.2	5321.3	5326.2	5321.3	5309.2	5299.5	5275.2	5255.7	5226.5	5204.6
17.5°	5246.0	5260.6	5267.9	5275.2	5267.9	5260.6	5246.0	5226.5	5199.8	5175.5	5153.6
20°	5173.0	5182.8	5192.5	5194.9	5192.5	5182.8	5173.0	5151.2	5109.8	5104.9	5087.9
22.5°	5068.5	5075.8	5097.6	5090.3	5097.6	5075.8	5068.5	5048.9	5034.4	5007.6	4990.6
25°	4917.6	4924.9	4927.4	4929.8	4927.4	4924.9	4917.6	4900.6	4886.1	4866.6	4856.8
27.5°	4657.4	4657.4	4662.2	4664.7	4662.2	4657.4	4657.4	4645.2	4635.5	4625.8	4616.1
30°	4263.4	4263.4	4263.4	4275.6	4263.4	4263.4	4263.4	4261.0	4261.0	4263.4	4263.4
32.5°	3808.6	3803.7	3798.9	3803.7	3798.9	3803.7	3808.6	3811.0	3808.6	3815.9	3828.1
35°	3293.0	3290.6	3297.9	3288.2	3297.9	3290.6	3293.0	3293.0	3302.8	3312.5	3314.9
37.5°	2799.3	2794.5	2804.2	2794.5	2804.2	2794.5	2799.3	2796.9	2794.5	2799.3	2792.1
40°	2330.0	2334.8	2334.8	2354.3	2334.8	2334.8	2330.0	2325.1	2308.0	2298.3	2288.6
42.5°	1880.0	1894.6	1889.7	1904.3	1889.7	1894.6	1880.0	1870.3	1850.8	1833.7	1819.2
45°	1454.3	1464.2	1464.2	1469.0	1464.2	1464.2	1454.3	1444.6	1427.6	1413.0	1403.3
47.5°	1116.3	1116.3	1116.3	1118.8	1116.3	1116.3	1116.3	1099.3	1094.5	1084.7	1072.5
50°	848.8	851.2	853.7	856.1	853.7	851.2	848.8	843.9	841.5	836.6	834.2
52.5°	651.8	654.2	649.4	654.2	649.4	654.2	651.8	654.2	646.9	646.9	644.5
55°	493.7	491.3	493.7	496.1	493.7	491.3	493.7	493.7	491.3	491.3	491.3
57.5°	362.4	357.5	357.5	357.5	357.5	357.5	362.4	360.0	367.3	362.4	364.8
60°	270.0	272.4	272.4	274.8	272.4	272.4	270.0	274.8	274.8	277.3	277.3
62.5°	199.4	206.7	201.8	206.7	201.8	206.7	199.4	201.8	201.8	204.3	206.7
65°	128.9	128.9	128.9	131.3	128.9	128.9	128.9	131.3	133.7	131.3	138.6
67.5°	87.6	90.0	94.9	92.4	94.9	90.0	87.6	90.0	90.0	97.3	94.9
70°	70.6	63.3	63.3	70.6	63.3	63.3	70.6	65.7	63.3	68.1	65.7
72.5°	41.3	36.4	41.3	41.3	41.3	36.4	41.3	36.4	38.9	38.9	43.7
75°	21.9	19.4	17.0	24.3	17.0	19.4	21.9	21.9	21.9	21.9	24.3
77.5°	14.6	12.1	17.0	17.0	17.0	12.1	14.6	12.1	14.6	12.1	14.6
80°	7.3	9.7	7.3	12.1	7.3	9.7	7.3	12.1	7.3	9.7	9.7
82.5°	2.4	4.9	4.9	4.9	4.9	4.9	2.4	2.4	4.9	4.9	2.4
85°	0.0	4.9	2.4	2.4	2.4	4.9	0.0	0.0	0.0	0.0	0.0
87.5°	2.4	0.0	0.0	2.4	0.0	0.0	2.4	0.0	0.0	0.0	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



TEST NUMBER: P248770

CATALOG NUMBER: LD8B90D010 ER8B90830 8LBSW0GPH

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9
2.5°	5031.9	5024.6	5027.1	5012.5	5012.5	5007.6	5010.1	4997.9	4993.1	4988.2	4995.5
5°	5104.9	5092.8	5083.0	5061.2	5048.9	5034.4	5027.1	5007.6	4990.6	4976.0	4973.6
7.5°	5163.3	5136.5	5119.5	5090.3	5068.5	5051.5	5027.1	5000.3	4978.5	4959.0	4944.4
10°	5187.6	5160.9	5134.1	5097.6	5073.3	5041.6	5017.3	4983.3	4954.1	4927.4	4910.3
12.5°	5190.0	5156.0	5131.6	5090.3	5058.7	5024.6	4997.9	4959.0	4924.9	4898.2	4871.5
15°	5168.2	5136.5	5107.3	5063.6	5031.9	5000.3	4968.8	4927.4	4895.8	4864.2	4844.7
17.5°	5119.5	5090.3	5056.3	5014.9	4985.8	4956.6	4922.5	4888.5	4851.9	4817.9	4793.6
20°	5056.3	5024.6	4995.5	4954.1	4929.8	4898.2	4866.6	4830.1	4800.9	4766.9	4740.1
22.5°	4961.5	4932.2	4905.5	4881.2	4842.2	4817.9	4796.1	4754.7	4725.5	4693.9	4664.7
25°	4825.2	4796.1	4774.2	4744.9	4727.9	4701.2	4679.3	4642.8	4616.1	4586.9	4562.5
27.5°	4601.5	4584.5	4572.2	4555.2	4540.7	4528.5	4516.4	4487.2	4467.7	4441.0	4416.7
30°	4265.8	4263.4	4256.1	4248.8	4258.5	4258.5	4258.5	4253.7	4236.7	4217.2	4200.2
32.5°	3835.4	3840.3	3850.0	3857.3	3876.7	3898.6	3918.1	3927.8	3927.8	3915.6	3908.3
35°	3322.2	3329.5	3344.1	3363.6	3387.9	3414.6	3458.4	3468.2	3475.4	3475.4	3465.7
37.5°	2789.6	2787.2	2801.8	2818.8	2833.4	2852.8	2884.5	2891.8	2903.9	2899.1	2889.3
40°	2271.5	2259.4	2254.5	2259.4	2276.4	2269.1	2276.4	2271.5	2271.5	2254.5	2254.5
42.5°	1792.4	1777.9	1768.1	1760.9	1760.9	1743.7	1731.6	1719.5	1712.2	1700.0	1697.6
45°	1381.5	1364.3	1352.2	1347.3	1340.1	1318.2	1303.6	1289.0	1271.9	1267.1	1269.5
47.5°	1072.5	1055.5	1050.6	1038.5	1026.3	1014.2	1004.5	987.4	984.9	975.2	984.9
50°	826.9	822.1	814.8	809.9	802.6	792.8	783.1	773.4	768.5	768.5	770.9
52.5°	642.1	644.5	637.2	629.9	625.1	625.1	612.8	610.4	610.4	600.7	610.4
55°	491.3	488.8	491.3	486.4	486.4	479.1	479.1	471.8	471.8	464.5	469.4
57.5°	360.0	364.8	360.0	362.4	367.3	360.0	357.5	350.2	355.1	350.2	352.7
60°	279.7	279.7	279.7	277.3	277.3	274.8	274.8	272.4	272.4	267.5	272.4
62.5°	206.7	209.1	209.1	209.1	211.6	209.1	206.7	209.1	206.7	206.7	209.1
65°	136.2	138.6	138.6	136.2	141.0	136.2	138.6	141.0	143.5	141.0	143.5
67.5°	92.4	92.4	94.9	97.3	94.9	97.3	99.7	97.3	99.7	104.6	99.7
70°	68.1	70.6	70.6	68.1	65.7	68.1	65.7	73.0	73.0	73.0	77.8
72.5°	43.7	43.7	41.3	41.3	41.3	41.3	41.3	48.7	43.7	41.3	46.2
75°	24.3	26.7	26.7	19.4	21.9	26.7	19.4	21.9	29.2	24.3	29.2
77.5°	14.6	14.6	14.6	14.6	14.6	14.6	19.4	17.0	17.0	17.0	19.4
80°	12.1	9.7	9.7	7.3	9.7	9.7	9.7	14.6	12.1	12.1	14.6
82.5°	4.9	4.9	2.4	0.0	4.9	4.9	4.9	4.9	4.9	4.9	9.7
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	0.0	0.0	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



TEST NUMBER: P248770

CATALOG NUMBER: LD8B90D010 ER8B90830 8LBSW0GPH

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9
2.5°	4976.0	4976.0	4973.6	4968.8	4959.0	4959.0	4956.6	4949.2	4944.4	4941.9	4941.9
5°	4951.6	4941.9	4932.2	4905.5	4905.5	4900.6	4886.1	4876.3	4871.5	4859.2	4854.4
7.5°	4929.8	4900.6	4883.6	4866.6	4844.7	4834.9	4817.9	4810.6	4793.6	4781.5	4774.2
10°	4876.3	4856.8	4834.9	4808.2	4791.2	4771.8	4752.2	4737.7	4715.8	4703.6	4693.9
12.5°	4839.8	4810.6	4791.2	4761.9	4732.8	4715.8	4689.1	4672.1	4650.1	4625.8	4611.2
15°	4805.8	4774.2	4747.4	4715.8	4684.2	4664.7	4633.1	4613.7	4582.1	4557.7	4540.7
17.5°	4754.7	4727.9	4698.8	4659.8	4630.7	4606.4	4572.2	4548.0	4518.8	4487.2	4470.1
20°	4701.2	4669.5	4640.4	4601.5	4572.2	4543.1	4509.1	4482.3	4448.2	4419.1	4399.7
22.5°	4630.7	4594.2	4569.8	4530.9	4496.9	4465.3	4433.7	4402.1	4370.4	4346.1	4324.2
25°	4528.5	4489.6	4462.8	4431.2	4399.7	4375.3	4336.4	4317.0	4285.3	4263.4	4241.5
27.5°	4382.5	4353.4	4329.1	4297.5	4270.7	4251.3	4222.1	4202.7	4175.8	4156.4	4139.4
30°	4168.6	4144.3	4122.4	4090.7	4071.3	4054.3	4027.5	4010.4	3991.0	3969.1	3964.3
32.5°	3881.6	3862.1	3840.3	3818.3	3803.7	3794.0	3772.1	3762.4	3743.0	3730.8	3718.6
35°	3448.7	3431.6	3419.5	3409.8	3404.9	3407.3	3402.5	3412.2	3417.0	3414.6	3417.0
37.5°	2882.1	2872.2	2877.1	2884.5	2908.8	2940.4	2969.5	3013.3	3042.5	3071.8	3098.5
40°	2249.7	2257.0	2276.4	2320.2	2383.4	2454.0	2519.7	2602.4	2685.0	2743.4	2796.9
42.5°	1697.6	1719.5	1768.1	1831.3	1926.2	2030.8	2133.0	2254.5	2354.3	2451.5	2519.7
45°	1276.9	1306.0	1369.3	1456.8	1561.4	1683.0	1811.9	1948.1	2067.3	2167.0	2242.4
47.5°	994.8	1021.5	1084.7	1177.1	1306.0	1432.5	1566.3	1707.3	1831.3	1928.6	1994.3
50°	785.5	819.6	875.5	972.8	1101.8	1235.5	1374.2	1512.7	1629.5	1712.2	1770.6
52.5°	617.8	649.4	702.8	805.1	936.4	1070.1	1199.0	1335.2	1437.3	1517.6	1556.5
55°	479.1	508.3	564.2	649.4	773.4	904.8	1033.6	1150.4	1245.2	1303.6	1340.1
57.5°	364.8	386.7	425.7	510.7	622.7	744.2	853.7	970.4	1043.4	1084.7	1109.0
60°	277.3	294.3	335.7	401.3	503.4	608.0	700.4	788.0	846.4	880.4	904.8
62.5°	209.1	228.6	257.8	313.7	391.5	476.7	554.5	620.2	668.8	690.7	707.7
65°	143.5	158.1	180.0	223.7	289.4	350.2	411.0	459.7	491.3	515.6	525.4
67.5°	107.0	116.7	128.9	163.0	209.1	257.8	299.1	333.2	367.3	377.0	394.0
70°	80.3	87.6	99.7	124.0	150.8	184.8	218.9	238.4	262.7	279.7	284.6
72.5°	51.1	53.5	65.7	80.3	102.1	124.0	146.0	163.0	177.6	187.3	192.1
75°	29.2	43.7	43.7	58.4	73.0	82.7	97.3	109.4	116.7	124.0	124.0
77.5°	19.4	26.7	29.2	36.4	43.7	56.0	68.1	75.4	82.7	85.1	85.1
80°	17.0	19.4	19.4	26.7	31.6	41.3	48.7	51.1	56.0	58.4	63.3
82.5°	7.3	9.7	12.1	19.4	21.9	21.9	29.2	31.6	36.4	38.9	38.9
85°	2.4	4.9	4.9	7.3	12.1	14.6	17.0	19.4	21.9	21.9	24.3
87.5°	2.4	2.4	0.0	2.4	4.9	4.9	9.7	9.7	9.7	14.6	14.6
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: P248770

CATALOG NUMBER: LD8B90D010 ER8B90830 8LBSW0GPH

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9	4980.9
2.5°	4937.1	4939.5	4929.8	4927.4	4922.5	4924.9	4929.8
5°	4847.1	4849.5	4839.8	4830.1	4830.1	4827.6	4830.1
7.5°	4761.9	4764.4	4749.8	4744.9	4735.2	4737.7	4737.7
10°	4676.9	4676.9	4655.0	4652.5	4645.2	4642.8	4642.8
12.5°	4594.2	4586.9	4569.8	4560.1	4565.0	4550.4	4550.4
15°	4521.2	4509.1	4487.2	4479.8	4467.7	4462.8	4462.8
17.5°	4445.8	4436.1	4416.7	4402.1	4387.4	4385.0	4387.4
20°	4372.8	4363.1	4338.8	4329.1	4317.0	4317.0	4312.1
22.5°	4299.9	4290.1	4268.3	4261.0	4244.0	4244.0	4246.4
25°	4224.5	4217.2	4192.8	4188.0	4185.6	4175.8	4180.7
27.5°	4122.4	4117.5	4098.0	4090.7	4081.0	4078.6	4083.4
30°	3935.1	3927.8	3913.2	3905.9	3888.9	3891.3	3896.1
32.5°	3701.6	3691.9	3672.4	3665.1	3650.6	3645.7	3648.1
35°	3409.8	3402.5	3385.5	3385.5	3370.9	3366.0	3370.9
37.5°	3113.1	3120.3	3113.1	3120.3	3113.1	3110.6	3113.1
40°	2833.4	2860.1	2864.9	2891.8	2882.1	2896.6	2894.2
42.5°	2565.8	2609.6	2626.7	2648.5	2643.7	2653.4	2660.7
45°	2295.8	2332.4	2349.4	2364.0	2366.4	2371.3	2373.7
47.5°	2040.5	2069.7	2072.1	2089.1	2086.7	2086.7	2094.0
50°	1802.2	1821.6	1826.4	1838.6	1828.9	1824.0	1826.4
52.5°	1580.9	1600.3	1595.4	1600.3	1588.2	1583.3	1585.7
55°	1354.6	1364.3	1364.3	1364.3	1349.8	1349.8	1349.8
57.5°	1123.6	1126.1	1121.2	1123.6	1121.2	1106.6	1104.2
60°	912.1	912.1	909.6	912.1	904.8	897.5	897.5
62.5°	712.6	717.5	727.2	717.5	712.6	717.5	710.2
65°	532.7	542.4	539.9	544.8	542.4	542.4	537.5
67.5°	401.3	403.7	406.1	408.6	408.6	408.6	408.6
70°	294.3	301.6	299.1	299.1	299.1	299.1	313.7
72.5°	197.0	206.7	204.3	209.1	209.1	214.0	209.1
75°	133.7	143.5	138.6	146.0	143.5	138.6	150.8
77.5°	90.0	94.9	97.3	99.7	97.3	94.9	97.3
80°	63.3	68.1	65.7	68.1	68.1	68.1	70.6
82.5°	38.9	46.2	43.7	46.2	43.7	46.2	46.2
85°	26.7	29.2	24.3	29.2	26.7	26.7	31.6
87.5°	17.0	14.6	14.6	17.0	14.6	17.0	14.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)