

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: P248824

Luminaire Tested: **LD8B90D010 ER8B90935 8LBSW0GPH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P248824
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 ER8B90935 8LBSW0GPH
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT
90 CRI 3500 CCT WITH GRAPHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7441.0 lumens
Efficiency: N/A
Efficacy: 86.4 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

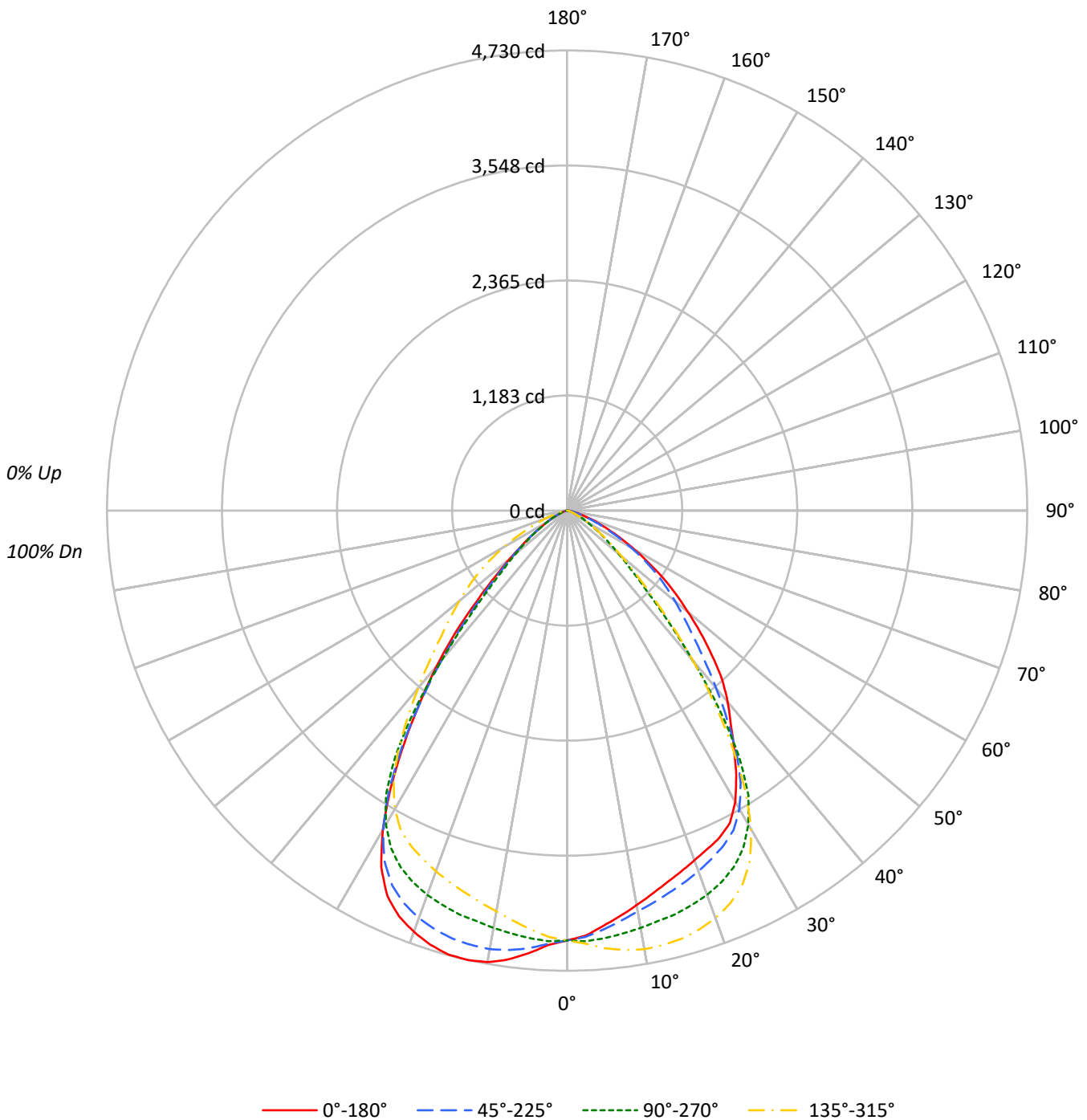
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	136219	136219	136219	136219
5°	132601	136539	141414	136539
10°	128933	136361	147574	136361
15°	126356	137168	150803	137168
20°	125496	137956	151190	137956
25°	126155	137679	148760	137679
30°	123035	132639	135021	132639
35°	112541	115707	109782	115707
40°	103324	80488	84050	80488
45°	91806	49100	56814	49100
50°	77706	32799	36426	32799
55°	64358	22381	23655	22381
60°	49085	14900	15030	14900
65°	34782	9281	8500	9281
70°	25082	6221	5644	6221
75°	15929	3086	2573	3086
80°	11116	2309	1900	2309
85°	9942	0	743	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	420.5	5.7
10°-20°	1217.6	16.4
20°-30°	1843.7	24.8
30°-40°	1847.8	24.8
40°-50°	1160.3	15.6
50°-60°	618.3	8.3
60°-70°	254.3	3.4
70°-80°	67.2	0.9
80°-90°	11.4	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°	3481.7	46.8
0°-40°	5329.5	71.6
0°-60°	7108.2	95.5
0°-90°	7441.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7441.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4418	4418	4418	4418	4418	
5°	4284	4411	4568	4411	4284	404
15°	3958	4297	4724	4297	3958	1119
25°	3708	4046	4372	4046	3708	1701
35°	2990	3074	2916	3074	2990	1873
45°	2105	1126	1303	1126	2105	1619
55°	1197	416	440	416	1197	1067
65°	477	127	116	127	477	494
75°	134	26	22	26	134	151
85°	28	0	2	0	28	31
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°	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5
2.5°	4372.2	4367.9	4365.7	4370.1	4372.2	4380.8	4378.7	4382.9	4382.9	4385.2	4389.4
5°	4283.8	4281.6	4283.8	4283.8	4292.4	4301.0	4298.9	4305.4	4309.6	4320.4	4324.7
7.5°	4201.8	4201.8	4199.6	4208.2	4212.6	4225.5	4223.3	4234.1	4240.6	4251.4	4266.5
10°	4117.7	4117.7	4119.8	4126.3	4128.5	4147.9	4147.9	4162.9	4171.6	4182.4	4201.8
12.5°	4035.7	4035.7	4048.7	4044.3	4052.9	4068.0	4074.5	4089.6	4102.6	4124.1	4143.6
15°	3958.0	3958.0	3962.4	3973.1	3979.6	3999.1	4009.8	4027.1	4042.2	4063.8	4091.8
17.5°	3891.2	3889.0	3891.2	3904.1	3917.1	3934.3	3942.9	3964.5	3979.6	4007.7	4033.6
20°	3824.3	3828.7	3828.7	3839.4	3848.0	3869.6	3878.2	3902.0	3919.2	3945.1	3975.3
22.5°	3766.1	3764.0	3764.0	3779.0	3785.5	3804.9	3813.5	3835.1	3854.5	3876.1	3904.1
25°	3707.8	3703.5	3712.2	3714.3	3718.6	3740.2	3746.6	3761.7	3781.2	3800.6	3828.7
27.5°	3621.5	3617.3	3619.4	3628.0	3634.5	3651.7	3656.1	3671.2	3686.3	3703.5	3727.3
30°	3455.4	3451.2	3449.0	3464.1	3470.6	3483.5	3490.0	3515.9	3520.2	3539.6	3556.8
32.5°	3235.4	3233.3	3237.6	3250.5	3257.0	3274.3	3282.9	3298.0	3308.8	3319.6	3336.8
35°	2989.6	2985.2	2989.6	3002.6	3002.6	3017.6	3024.1	3030.5	3028.4	3030.5	3026.3
37.5°	2761.0	2758.8	2761.0	2767.4	2761.0	2767.4	2761.0	2748.0	2724.3	2698.4	2672.5
40°	2566.8	2568.9	2556.1	2564.7	2540.9	2536.6	2512.9	2480.5	2433.1	2381.3	2308.0
42.5°	2359.8	2353.3	2344.7	2348.9	2329.6	2314.4	2275.6	2234.7	2174.2	2088.0	1999.5
45°	2105.2	2103.1	2098.7	2096.6	2083.6	2068.6	2036.1	1988.7	1921.9	1833.5	1727.7
47.5°	1857.2	1850.7	1850.7	1852.8	1837.7	1835.6	1809.7	1768.7	1710.5	1624.2	1514.2
50°	1619.8	1617.7	1622.1	1630.7	1619.8	1615.6	1598.4	1570.3	1518.5	1445.2	1341.6
52.5°	1406.3	1404.2	1408.5	1419.3	1414.9	1419.3	1402.1	1380.5	1346.0	1274.7	1184.2
55°	1197.1	1197.1	1197.1	1210.0	1210.0	1210.0	1201.4	1188.5	1156.1	1104.4	1020.3
57.5°	979.3	981.4	994.4	996.5	994.4	998.7	996.5	983.5	962.1	925.4	860.7
60°	795.9	795.9	802.4	808.9	806.7	808.9	808.9	802.4	780.8	750.7	698.9
62.5°	629.8	636.3	632.0	636.3	644.9	636.3	632.0	627.7	612.6	593.2	550.0
65°	476.7	481.0	481.0	483.2	478.8	481.0	472.4	465.9	457.3	435.7	407.7
67.5°	362.4	362.4	362.4	362.4	360.2	358.1	355.9	349.4	334.4	325.7	295.5
70°	278.2	265.3	265.3	265.3	265.3	267.5	261.0	252.4	248.1	233.0	211.4
72.5°	185.5	189.8	185.5	185.5	181.2	183.3	174.7	170.4	166.1	157.5	144.5
75°	133.7	123.0	127.2	129.4	123.0	127.2	118.6	110.0	110.0	103.5	97.0
77.5°	86.3	84.2	86.3	88.4	86.3	84.2	79.8	75.5	75.5	73.3	66.9
80°	62.6	60.4	60.4	60.4	58.2	60.4	56.1	56.1	51.8	49.6	45.3
82.5°	41.0	41.0	38.8	41.0	38.8	41.0	34.5	34.5	34.5	32.3	28.1
85°	28.1	23.7	23.7	25.9	21.6	25.9	23.7	21.6	19.4	19.4	17.2
87.5°	13.0	15.1	13.0	15.1	13.0	13.0	15.1	13.0	13.0	8.6	8.6
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°	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5
2.5°	4395.9	4398.0	4398.0	4406.7	4411.0	4413.1	4413.1	4430.4	4424.0	4428.3	4432.6
5°	4333.4	4346.3	4350.6	4350.6	4374.3	4382.9	4391.6	4411.0	4413.1	4426.1	4441.2
7.5°	4272.9	4288.0	4296.7	4316.1	4331.2	4346.3	4372.2	4385.2	4398.0	4415.4	4434.7
10°	4214.7	4232.0	4249.2	4264.3	4288.0	4307.5	4324.7	4354.9	4370.1	4393.8	4419.6
12.5°	4158.7	4182.4	4197.5	4223.3	4249.2	4266.5	4292.4	4320.4	4344.2	4367.9	4398.0
15°	4109.1	4137.1	4154.3	4182.4	4210.4	4234.1	4262.2	4296.7	4314.0	4342.0	4370.1
17.5°	4055.1	4085.3	4106.9	4132.8	4167.3	4193.1	4216.9	4251.4	4272.9	4303.1	4335.5
20°	3999.1	4029.2	4055.1	4081.0	4115.5	4141.4	4169.4	4204.0	4227.7	4257.9	4283.8
22.5°	3932.2	3960.3	3988.2	4018.4	4052.9	4074.5	4106.9	4137.1	4162.9	4191.0	4216.9
25°	3845.9	3880.4	3902.0	3930.0	3958.0	3981.7	4016.3	4046.5	4068.0	4094.0	4117.7
27.5°	3744.5	3770.4	3787.7	3811.4	3839.4	3861.0	3886.8	3917.1	3938.7	3962.4	3979.6
30°	3571.9	3595.7	3610.8	3628.0	3656.1	3675.5	3697.1	3725.1	3740.2	3757.5	3772.6
32.5°	3345.4	3364.9	3373.5	3386.4	3405.9	3425.2	3442.6	3466.3	3472.7	3483.5	3483.5
35°	3017.6	3021.9	3019.8	3024.1	3032.7	3043.5	3058.6	3073.7	3082.3	3082.3	3075.9
37.5°	2633.7	2607.8	2579.8	2558.2	2551.7	2547.4	2556.1	2562.5	2571.2	2575.4	2564.7
40°	2234.7	2176.4	2113.8	2057.7	2018.9	2001.7	1995.2	1999.5	1999.5	2014.6	2014.6
42.5°	1891.7	1801.1	1708.4	1624.2	1568.1	1525.0	1505.6	1505.6	1507.7	1518.5	1525.0
45°	1607.0	1492.6	1384.7	1292.1	1214.4	1158.3	1132.4	1125.9	1123.8	1128.1	1143.2
47.5°	1389.1	1270.5	1158.3	1044.0	962.1	905.9	882.2	873.5	864.9	873.5	875.8
50°	1218.7	1095.8	977.1	862.8	776.5	726.9	696.7	683.7	681.6	681.6	685.9
52.5°	1063.4	949.1	830.5	714.0	623.3	575.9	547.9	541.4	532.8	541.4	541.4
55°	916.7	802.4	685.9	575.9	500.4	450.8	424.9	416.3	412.0	418.4	418.4
57.5°	757.1	660.0	552.2	453.0	377.5	343.0	323.5	312.8	310.6	314.9	310.6
60°	621.2	539.3	446.5	355.9	297.7	261.0	245.9	241.6	237.2	241.6	241.6
62.5°	491.8	422.8	347.2	278.2	228.6	202.8	185.5	185.5	183.3	183.3	185.5
65°	364.5	310.6	256.7	198.4	159.6	140.2	127.2	127.2	125.1	127.2	125.1
67.5°	265.3	228.6	185.5	144.5	114.4	103.5	94.9	88.4	92.8	88.4	86.3
70°	194.2	163.9	133.7	110.0	88.4	77.7	71.2	69.0	64.7	64.7	64.7
72.5°	129.4	110.0	90.6	71.2	58.2	47.4	45.3	41.0	36.7	38.8	43.1
75°	86.3	73.3	64.7	51.8	38.8	38.8	25.9	25.9	21.6	25.9	19.4
77.5°	60.4	49.6	38.8	32.3	25.9	23.7	17.2	17.2	15.1	15.1	15.1
80°	43.1	36.7	28.1	23.7	17.2	17.2	15.1	13.0	10.7	10.7	13.0
82.5°	25.9	19.4	19.4	17.2	10.7	8.6	6.5	8.6	4.4	4.4	4.4
85°	15.1	13.0	10.7	6.5	4.4	4.4	2.1	0.0	2.1	2.1	0.0
87.5°	8.6	4.4	4.4	2.1	0.0	2.1	2.1	0.0	0.0	0.0	4.4
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°	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5
2.5°	4443.4	4441.2	4445.5	4445.5	4458.5	4456.3	4462.8	4462.8	4458.5	4460.6	4469.2
5°	4458.5	4465.0	4477.9	4488.7	4508.0	4516.7	4527.5	4538.3	4540.5	4546.9	4553.4
7.5°	4458.5	4480.1	4495.2	4514.5	4540.5	4555.5	4579.2	4598.7	4607.3	4618.0	4631.0
10°	4449.8	4471.4	4499.4	4521.0	4553.4	4577.1	4600.8	4631.0	4644.0	4661.2	4678.5
12.5°	4432.6	4456.3	4486.5	4514.5	4551.2	4572.8	4603.0	4631.0	4650.5	4674.2	4693.6
15°	4406.7	4434.7	4462.8	4490.8	4529.6	4555.5	4583.6	4615.9	4635.4	4661.2	4678.5
17.5°	4365.7	4395.9	4421.8	4447.7	4484.3	4514.5	4540.5	4570.6	4590.1	4611.7	4635.4
20°	4316.1	4344.2	4372.2	4393.8	4430.4	4456.3	4484.3	4512.4	4527.5	4531.8	4568.5
22.5°	4253.6	4272.9	4294.5	4329.1	4350.6	4374.3	4400.3	4426.1	4441.2	4465.0	4477.9
25°	4150.0	4169.4	4193.1	4208.2	4234.1	4253.6	4279.4	4307.5	4316.1	4333.4	4346.3
27.5°	4005.5	4016.3	4027.1	4040.0	4055.1	4065.9	4081.0	4094.0	4102.6	4111.2	4119.8
30°	3776.8	3776.8	3776.8	3768.2	3774.7	3781.2	3783.3	3781.2	3781.2	3779.0	3779.0
32.5°	3474.9	3457.7	3438.2	3421.0	3414.5	3405.9	3401.5	3395.1	3384.3	3377.8	3380.0
35°	3067.2	3028.4	3004.7	2983.1	2965.9	2952.9	2946.4	2940.0	2937.8	2929.2	2920.5
37.5°	2558.2	2530.1	2512.9	2500.0	2484.9	2471.9	2474.0	2476.2	2482.6	2478.4	2480.5
40°	2018.9	2012.4	2018.9	2003.8	1999.5	2003.8	2014.6	2029.8	2038.4	2047.0	2062.1
42.5°	1535.8	1546.5	1561.7	1561.7	1568.1	1576.8	1589.7	1613.5	1626.3	1641.4	1658.7
45°	1156.1	1169.1	1188.5	1194.9	1199.3	1210.0	1225.2	1244.6	1253.2	1266.1	1281.2
47.5°	890.8	899.5	910.2	921.0	931.8	936.1	951.2	951.2	962.1	970.7	974.9
50°	694.5	703.2	711.8	718.3	722.6	729.1	733.3	739.8	742.0	746.3	748.4
52.5°	543.5	554.4	554.4	558.6	565.1	571.6	569.5	571.6	573.7	573.7	580.2
55°	424.9	424.9	431.4	431.4	435.7	433.5	435.7	435.7	435.7	435.7	437.9
57.5°	317.0	319.3	325.7	321.4	319.3	323.5	319.3	323.5	321.4	325.7	319.3
60°	243.7	243.7	245.9	245.9	248.1	248.1	248.1	245.9	245.9	243.7	243.7
62.5°	183.3	185.5	187.7	185.5	185.5	185.5	183.3	183.3	181.2	179.0	179.0
65°	123.0	120.8	125.1	120.8	123.0	123.0	120.8	123.0	116.5	118.6	116.5
67.5°	88.4	86.3	84.2	86.3	84.2	81.9	81.9	84.2	86.3	79.8	79.8
70°	58.2	60.4	58.2	60.4	62.6	62.6	60.4	58.2	60.4	56.1	58.2
72.5°	36.7	36.7	36.7	36.7	36.7	38.8	38.8	38.8	34.5	34.5	32.3
75°	17.2	23.7	19.4	17.2	23.7	23.7	21.6	21.6	19.4	19.4	19.4
77.5°	17.2	13.0	13.0	13.0	13.0	13.0	13.0	13.0	10.7	13.0	10.7
80°	8.6	8.6	8.6	6.5	8.6	8.6	10.7	8.6	8.6	6.5	10.7
82.5°	4.4	4.4	4.4	0.0	2.1	4.4	4.4	2.1	4.4	4.4	2.1
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: P248824

CATALOG NUMBER: LD8B90D010 ER8B90935 8LBSW0GPH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5
2.5°	4467.1	4465.0	4467.1	4469.2	4467.1	4465.0	4467.1	4469.2	4460.6	4458.5	4462.8
5°	4562.0	4562.0	4566.3	4568.5	4566.3	4562.0	4562.0	4553.4	4546.9	4540.5	4538.3
7.5°	4644.0	4648.3	4652.6	4654.7	4652.6	4648.3	4644.0	4631.0	4618.0	4607.3	4598.7
10°	4693.6	4700.1	4708.7	4713.0	4708.7	4700.1	4693.6	4678.5	4661.2	4644.0	4631.0
12.5°	4715.2	4721.7	4732.4	4730.3	4732.4	4721.7	4715.2	4693.6	4674.2	4650.5	4631.0
15°	4700.1	4708.7	4719.4	4723.8	4719.4	4708.7	4700.1	4678.5	4661.2	4635.4	4615.9
17.5°	4652.6	4665.5	4672.0	4678.5	4672.0	4665.5	4652.6	4635.4	4611.7	4590.1	4570.6
20°	4587.9	4596.6	4605.2	4607.3	4605.2	4596.6	4587.9	4568.5	4531.8	4527.5	4512.4
22.5°	4495.2	4501.7	4521.0	4514.5	4521.0	4501.7	4495.2	4477.9	4465.0	4441.2	4426.1
25°	4361.4	4367.9	4370.1	4372.2	4370.1	4367.9	4361.4	4346.3	4333.4	4316.1	4307.5
27.5°	4130.6	4130.6	4134.9	4137.1	4134.9	4130.6	4130.6	4119.8	4111.2	4102.6	4094.0
30°	3781.2	3781.2	3781.2	3792.0	3781.2	3781.2	3781.2	3779.0	3779.0	3781.2	3781.2
32.5°	3377.8	3373.5	3369.2	3373.5	3369.2	3373.5	3377.8	3380.0	3377.8	3384.3	3395.1
35°	2920.5	2918.4	2924.9	2916.3	2924.9	2918.4	2920.5	2920.5	2929.2	2937.8	2940.0
37.5°	2482.6	2478.4	2487.0	2478.4	2487.0	2478.4	2482.6	2480.5	2478.4	2482.6	2476.2
40°	2066.4	2070.7	2070.7	2088.0	2070.7	2070.7	2066.4	2062.1	2047.0	2038.4	2029.8
42.5°	1667.3	1680.3	1676.0	1688.9	1676.0	1680.3	1667.3	1658.7	1641.4	1626.3	1613.5
45°	1289.8	1298.5	1298.5	1302.8	1298.5	1298.5	1289.8	1281.2	1266.1	1253.2	1244.6
47.5°	990.0	990.0	990.0	992.2	990.0	990.0	990.0	974.9	970.7	962.1	951.2
50°	752.8	754.9	757.1	759.3	757.1	754.9	752.8	748.4	746.3	742.0	739.8
52.5°	578.1	580.2	575.9	580.2	575.9	580.2	578.1	580.2	573.7	573.7	571.6
55°	437.9	435.7	437.9	440.0	437.9	435.7	437.9	437.9	435.7	435.7	435.7
57.5°	321.4	317.0	317.0	317.0	317.0	317.0	321.4	319.3	325.7	321.4	323.5
60°	239.4	241.6	241.6	243.7	241.6	241.6	239.4	243.7	243.7	245.9	245.9
62.5°	176.9	183.3	179.0	183.3	179.0	183.3	176.9	179.0	179.0	181.2	183.3
65°	114.4	114.4	114.4	116.5	114.4	114.4	114.4	116.5	118.6	116.5	123.0
67.5°	77.7	79.8	84.2	81.9	84.2	79.8	77.7	79.8	79.8	86.3	84.2
70°	62.6	56.1	56.1	62.6	56.1	56.1	62.6	58.2	56.1	60.4	58.2
72.5°	36.7	32.3	36.7	36.7	36.7	32.3	36.7	32.3	34.5	34.5	38.8
75°	19.4	17.2	15.1	21.6	15.1	17.2	19.4	19.4	19.4	19.4	21.6
77.5°	13.0	10.7	15.1	15.1	15.1	10.7	13.0	10.7	13.0	10.7	13.0
80°	6.5	8.6	6.5	10.7	6.5	8.6	6.5	10.7	6.5	8.6	8.6
82.5°	2.1	4.4	4.4	4.4	4.4	4.4	2.1	2.1	4.4	4.4	2.1
85°	0.0	4.4	2.1	2.1	2.1	4.4	0.0	0.0	0.0	0.0	0.0
87.5°	2.1	0.0	0.0	2.1	0.0	0.0	2.1	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: P248824

CATALOG NUMBER: LD8B90D010 ER8B90935 8LBSW0GPH

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5
2.5°	4462.8	4456.3	4458.5	4445.5	4445.5	4441.2	4443.4	4432.6	4428.3	4424.0	4430.4
5°	4527.5	4516.7	4508.0	4488.7	4477.9	4465.0	4458.5	4441.2	4426.1	4413.1	4411.0
7.5°	4579.2	4555.5	4540.5	4514.5	4495.2	4480.1	4458.5	4434.7	4415.4	4398.0	4385.2
10°	4600.8	4577.1	4553.4	4521.0	4499.4	4471.4	4449.8	4419.6	4393.8	4370.1	4354.9
12.5°	4603.0	4572.8	4551.2	4514.5	4486.5	4456.3	4432.6	4398.0	4367.9	4344.2	4320.4
15°	4583.6	4555.5	4529.6	4490.8	4462.8	4434.7	4406.7	4370.1	4342.0	4314.0	4296.7
17.5°	4540.5	4514.5	4484.3	4447.7	4421.8	4395.9	4365.7	4335.5	4303.1	4272.9	4251.4
20°	4484.3	4456.3	4430.4	4393.8	4372.2	4344.2	4316.1	4283.8	4257.9	4227.7	4204.0
22.5°	4400.3	4374.3	4350.6	4329.1	4294.5	4272.9	4253.6	4216.9	4191.0	4162.9	4137.1
25°	4279.4	4253.6	4234.1	4208.2	4193.1	4169.4	4150.0	4117.7	4094.0	4068.0	4046.5
27.5°	4081.0	4065.9	4055.1	4040.0	4027.1	4016.3	4005.5	3979.6	3962.4	3938.7	3917.1
30°	3783.3	3781.2	3774.7	3768.2	3776.8	3776.8	3776.8	3772.6	3757.5	3740.2	3725.1
32.5°	3401.5	3405.9	3414.5	3421.0	3438.2	3457.7	3474.9	3483.5	3483.5	3472.7	3466.3
35°	2946.4	2952.9	2965.9	2983.1	3004.7	3028.4	3067.2	3075.9	3082.3	3082.3	3073.7
37.5°	2474.0	2471.9	2484.9	2500.0	2512.9	2530.1	2558.2	2564.7	2575.4	2571.2	2562.5
40°	2014.6	2003.8	1999.5	2003.8	2018.9	2012.4	2018.9	2014.6	2014.6	1999.5	1999.5
42.5°	1589.7	1576.8	1568.1	1561.7	1561.7	1546.5	1535.8	1525.0	1518.5	1507.7	1505.6
45°	1225.2	1210.0	1199.3	1194.9	1188.5	1169.1	1156.1	1143.2	1128.1	1123.8	1125.9
47.5°	951.2	936.1	931.8	921.0	910.2	899.5	890.8	875.8	873.5	864.9	873.5
50°	733.3	729.1	722.6	718.3	711.8	703.2	694.5	685.9	681.6	681.6	683.7
52.5°	569.5	571.6	565.1	558.6	554.4	554.4	543.5	541.4	541.4	532.8	541.4
55°	435.7	433.5	435.7	431.4	431.4	424.9	424.9	418.4	418.4	412.0	416.3
57.5°	319.3	323.5	319.3	321.4	325.7	319.3	317.0	310.6	314.9	310.6	312.8
60°	248.1	248.1	248.1	245.9	245.9	243.7	243.7	241.6	241.6	237.2	241.6
62.5°	183.3	185.5	185.5	185.5	187.7	185.5	183.3	185.5	183.3	183.3	185.5
65°	120.8	123.0	123.0	120.8	125.1	120.8	123.0	125.1	127.2	125.1	127.2
67.5°	81.9	81.9	84.2	86.3	84.2	86.3	88.4	86.3	88.4	92.8	88.4
70°	60.4	62.6	62.6	60.4	58.2	60.4	58.2	64.7	64.7	64.7	69.0
72.5°	38.8	38.8	36.7	36.7	36.7	36.7	36.7	43.1	38.8	36.7	41.0
75°	21.6	23.7	23.7	17.2	19.4	23.7	17.2	19.4	25.9	21.6	25.9
77.5°	13.0	13.0	13.0	13.0	13.0	13.0	17.2	15.1	15.1	15.1	17.2
80°	10.7	8.6	8.6	6.5	8.6	8.6	8.6	13.0	10.7	10.7	13.0
82.5°	4.4	4.4	2.1	0.0	4.4	4.4	4.4	4.4	4.4	4.4	8.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	2.1	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	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: P248824

CATALOG NUMBER: LD8B90D010 ER8B90935 8LBSW0GPH

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5
2.5°	4413.1	4413.1	4411.0	4406.7	4398.0	4398.0	4395.9	4389.4	4385.2	4382.9	4382.9
5°	4391.6	4382.9	4374.3	4350.6	4350.6	4346.3	4333.4	4324.7	4320.4	4309.6	4305.4
7.5°	4372.2	4346.3	4331.2	4316.1	4296.7	4288.0	4272.9	4266.5	4251.4	4240.6	4234.1
10°	4324.7	4307.5	4288.0	4264.3	4249.2	4232.0	4214.7	4201.8	4182.4	4171.6	4162.9
12.5°	4292.4	4266.5	4249.2	4223.3	4197.5	4182.4	4158.7	4143.6	4124.1	4102.6	4089.6
15°	4262.2	4234.1	4210.4	4182.4	4154.3	4137.1	4109.1	4091.8	4063.8	4042.2	4027.1
17.5°	4216.9	4193.1	4167.3	4132.8	4106.9	4085.3	4055.1	4033.6	4007.7	3979.6	3964.5
20°	4169.4	4141.4	4115.5	4081.0	4055.1	4029.2	3999.1	3975.3	3945.1	3919.2	3902.0
22.5°	4106.9	4074.5	4052.9	4018.4	3988.2	3960.3	3932.2	3904.1	3876.1	3854.5	3835.1
25°	4016.3	3981.7	3958.0	3930.0	3902.0	3880.4	3845.9	3828.7	3800.6	3781.2	3761.7
27.5°	3886.8	3861.0	3839.4	3811.4	3787.7	3770.4	3744.5	3727.3	3703.5	3686.3	3671.2
30°	3697.1	3675.5	3656.1	3628.0	3610.8	3595.7	3571.9	3556.8	3539.6	3520.2	3515.9
32.5°	3442.6	3425.2	3405.9	3386.4	3373.5	3364.9	3345.4	3336.8	3319.6	3308.8	3298.0
35°	3058.6	3043.5	3032.7	3024.1	3019.8	3021.9	3017.6	3026.3	3030.5	3028.4	3030.5
37.5°	2556.1	2547.4	2551.7	2558.2	2579.8	2607.8	2633.7	2672.5	2698.4	2724.3	2748.0
40°	1995.2	2001.7	2018.9	2057.7	2113.8	2176.4	2234.7	2308.0	2381.3	2433.1	2480.5
42.5°	1505.6	1525.0	1568.1	1624.2	1708.4	1801.1	1891.7	1999.5	2088.0	2174.2	2234.7
45°	1132.4	1158.3	1214.4	1292.1	1384.7	1492.6	1607.0	1727.7	1833.5	1921.9	1988.7
47.5°	882.2	905.9	962.1	1044.0	1158.3	1270.5	1389.1	1514.2	1624.2	1710.5	1768.7
50°	696.7	726.9	776.5	862.8	977.1	1095.8	1218.7	1341.6	1445.2	1518.5	1570.3
52.5°	547.9	575.9	623.3	714.0	830.5	949.1	1063.4	1184.2	1274.7	1346.0	1380.5
55°	424.9	450.8	500.4	575.9	685.9	802.4	916.7	1020.3	1104.4	1156.1	1188.5
57.5°	323.5	343.0	377.5	453.0	552.2	660.0	757.1	860.7	925.4	962.1	983.5
60°	245.9	261.0	297.7	355.9	446.5	539.3	621.2	698.9	750.7	780.8	802.4
62.5°	185.5	202.8	228.6	278.2	347.2	422.8	491.8	550.0	593.2	612.6	627.7
65°	127.2	140.2	159.6	198.4	256.7	310.6	364.5	407.7	435.7	457.3	465.9
67.5°	94.9	103.5	114.4	144.5	185.5	228.6	265.3	295.5	325.7	334.4	349.4
70°	71.2	77.7	88.4	110.0	133.7	163.9	194.2	211.4	233.0	248.1	252.4
72.5°	45.3	47.4	58.2	71.2	90.6	110.0	129.4	144.5	157.5	166.1	170.4
75°	25.9	38.8	38.8	51.8	64.7	73.3	86.3	97.0	103.5	110.0	110.0
77.5°	17.2	23.7	25.9	32.3	38.8	49.6	60.4	66.9	73.3	75.5	75.5
80°	15.1	17.2	17.2	23.7	28.1	36.7	43.1	45.3	49.6	51.8	56.1
82.5°	6.5	8.6	10.7	17.2	19.4	19.4	25.9	28.1	32.3	34.5	34.5
85°	2.1	4.4	4.4	6.5	10.7	13.0	15.1	17.2	19.4	19.4	21.6
87.5°	2.1	2.1	0.0	2.1	4.4	4.4	8.6	8.6	8.6	13.0	13.0
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: P248824

CATALOG NUMBER: LD8B90D010 ER8B90935 8LBSW0GPH

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5	4417.5
2.5°	4378.7	4380.8	4372.2	4370.1	4365.7	4367.9	4372.2
5°	4298.9	4301.0	4292.4	4283.8	4283.8	4281.6	4283.8
7.5°	4223.3	4225.5	4212.6	4208.2	4199.6	4201.8	4201.8
10°	4147.9	4147.9	4128.5	4126.3	4119.8	4117.7	4117.7
12.5°	4074.5	4068.0	4052.9	4044.3	4048.7	4035.7	4035.7
15°	4009.8	3999.1	3979.6	3973.1	3962.4	3958.0	3958.0
17.5°	3942.9	3934.3	3917.1	3904.1	3891.2	3889.0	3891.2
20°	3878.2	3869.6	3848.0	3839.4	3828.7	3828.7	3824.3
22.5°	3813.5	3804.9	3785.5	3779.0	3764.0	3764.0	3766.1
25°	3746.6	3740.2	3718.6	3714.3	3712.2	3703.5	3707.8
27.5°	3656.1	3651.7	3634.5	3628.0	3619.4	3617.3	3621.5
30°	3490.0	3483.5	3470.6	3464.1	3449.0	3451.2	3455.4
32.5°	3282.9	3274.3	3257.0	3250.5	3237.6	3233.3	3235.4
35°	3024.1	3017.6	3002.6	3002.6	2989.6	2985.2	2989.6
37.5°	2761.0	2767.4	2761.0	2767.4	2761.0	2758.8	2761.0
40°	2512.9	2536.6	2540.9	2564.7	2556.1	2568.9	2566.8
42.5°	2275.6	2314.4	2329.6	2348.9	2344.7	2353.3	2359.8
45°	2036.1	2068.6	2083.6	2096.6	2098.7	2103.1	2105.2
47.5°	1809.7	1835.6	1837.7	1852.8	1850.7	1850.7	1857.2
50°	1598.4	1615.6	1619.8	1630.7	1622.1	1617.7	1619.8
52.5°	1402.1	1419.3	1414.9	1419.3	1408.5	1404.2	1406.3
55°	1201.4	1210.0	1210.0	1210.0	1197.1	1197.1	1197.1
57.5°	996.5	998.7	994.4	996.5	994.4	981.4	979.3
60°	808.9	808.9	806.7	808.9	802.4	795.9	795.9
62.5°	632.0	636.3	644.9	636.3	632.0	636.3	629.8
65°	472.4	481.0	478.8	483.2	481.0	481.0	476.7
67.5°	355.9	358.1	360.2	362.4	362.4	362.4	362.4
70°	261.0	267.5	265.3	265.3	265.3	265.3	278.2
72.5°	174.7	183.3	181.2	185.5	185.5	189.8	185.5
75°	118.6	127.2	123.0	129.4	127.2	123.0	133.7
77.5°	79.8	84.2	86.3	88.4	86.3	84.2	86.3
80°	56.1	60.4	58.2	60.4	60.4	60.4	62.6
82.5°	34.5	41.0	38.8	41.0	38.8	41.0	41.0
85°	23.7	25.9	21.6	25.9	23.7	23.7	28.1
87.5°	15.1	13.0	13.0	15.1	13.0	15.1	13.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)