

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: P248833

Luminaire Tested: **LD8B90D010 ER8B90940 8LBSW0GPH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P248833
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 ER8B90940 8LBSW0GPH
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT
90 CRI 4000 CCT WITH GRAPHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7771.0 lumens
Efficiency: N/A
Efficacy: 90.3 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

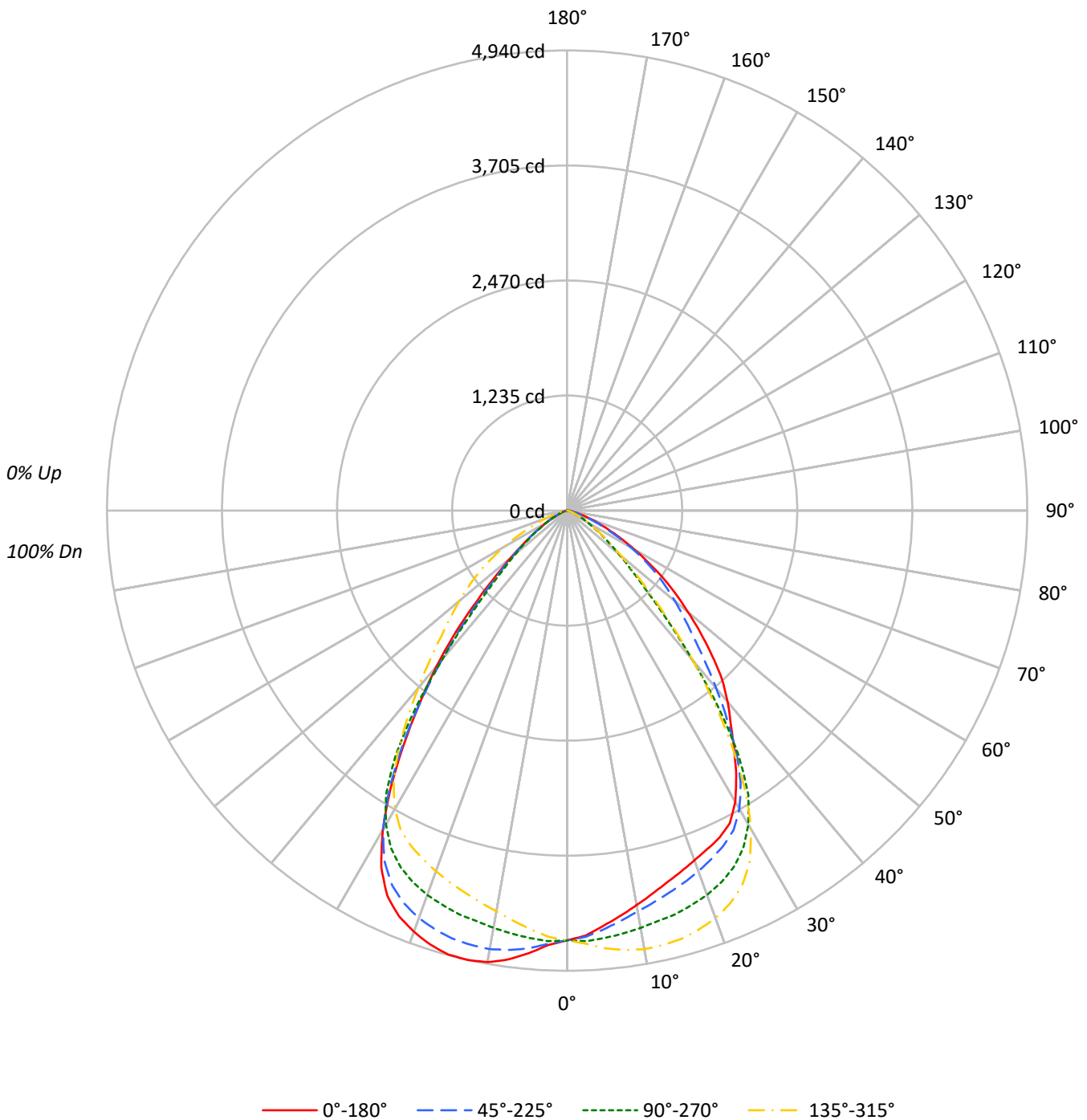
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	142260	142260	142260	142260
5°	138482	142593	147685	142593
10°	134651	142407	154118	142407
15°	131961	143253	157491	143253
20°	131061	144072	157894	144072
25°	131752	143782	155357	143782
30°	128494	138521	141010	138521
35°	117533	120838	114649	120838
40°	107905	84058	87778	84058
45°	95879	51280	59335	51280
50°	81156	34253	38038	34253
55°	67213	23375	24703	23375
60°	51262	15560	15696	15560
65°	36322	9697	8873	9697
70°	26200	6491	5896	6491
75°	16632	3229	2681	3229
80°	11614	2397	1989	2397
85°	10367	0	778	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	439.1	5.7
10°-20°	1271.6	16.4
20°-30°	1925.4	24.8
30°-40°	1929.8	24.8
40°-50°	1211.8	15.6
50°-60°	645.8	8.3
60°-70°	265.5	3.4
70°-80°	70.2	0.9
80°-90°	11.9	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°	3636.1	46.8
0°-40°	5565.9	71.6
0°-60°	7423.4	95.5
0°-90°	7771.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7771.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4613	4613	4613	4613	4613	
5°	4474	4607	4771	4607	4474	422
15°	4134	4487	4933	4487	4134	1169
25°	3872	4226	4566	4226	3872	1776
35°	3122	3210	3046	3210	3122	1956
45°	2199	1176	1361	1176	2199	1691
55°	1250	435	460	435	1250	1115
65°	498	133	122	133	498	516
75°	140	27	22	27	140	158
85°	29	0	2	0	29	32
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°	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4
2.5°	4566.1	4561.6	4559.3	4563.9	4566.1	4575.1	4572.9	4577.3	4577.3	4579.6	4584.1
5°	4473.8	4471.4	4473.8	4473.8	4482.8	4491.7	4489.5	4496.3	4500.7	4512.1	4516.5
7.5°	4388.2	4388.2	4385.9	4394.9	4399.4	4412.9	4410.6	4421.9	4428.7	4439.9	4455.7
10°	4300.3	4300.3	4302.5	4309.3	4311.6	4331.8	4331.8	4347.6	4356.6	4367.9	4388.2
12.5°	4214.7	4214.7	4228.2	4223.7	4232.7	4248.4	4255.2	4271.0	4284.5	4307.0	4327.4
15°	4133.6	4133.6	4138.1	4149.3	4156.1	4176.4	4187.6	4205.7	4221.5	4244.0	4273.3
17.5°	4063.8	4061.5	4063.8	4077.3	4090.8	4108.8	4117.8	4140.3	4156.1	4185.4	4212.5
20°	3993.9	3998.5	3998.5	4009.7	4018.7	4041.2	4050.2	4075.1	4093.0	4120.0	4151.6
22.5°	3933.1	3930.9	3930.9	3946.6	3953.4	3973.6	3982.6	4005.2	4025.5	4048.0	4077.3
25°	3872.3	3867.7	3876.8	3879.1	3883.5	3906.0	3912.8	3928.6	3948.9	3969.2	3998.5
27.5°	3782.2	3777.7	3779.9	3788.9	3795.7	3813.7	3818.2	3834.0	3849.8	3867.7	3892.6
30°	3608.7	3604.2	3602.0	3617.8	3624.5	3638.0	3644.7	3671.8	3676.3	3696.6	3714.6
32.5°	3378.9	3376.7	3381.2	3394.7	3401.4	3419.5	3428.5	3444.3	3455.5	3466.8	3484.8
35°	3122.2	3117.6	3122.2	3135.7	3135.7	3151.5	3158.2	3164.9	3162.7	3164.9	3160.5
37.5°	2883.4	2881.1	2883.4	2890.1	2883.4	2890.1	2883.4	2869.9	2845.1	2818.1	2791.0
40°	2680.6	2682.9	2669.4	2678.4	2653.6	2649.1	2624.4	2590.5	2541.0	2486.9	2410.4
42.5°	2464.4	2457.6	2448.7	2453.1	2432.9	2417.0	2376.5	2333.8	2270.6	2180.6	2088.2
45°	2198.6	2196.4	2191.8	2189.6	2176.1	2160.3	2126.4	2076.9	2007.1	1914.8	1804.3
47.5°	1939.5	1932.8	1932.8	1935.0	1919.2	1917.0	1889.9	1847.2	1786.4	1696.2	1581.3
50°	1691.7	1689.5	1694.0	1703.0	1691.7	1687.2	1669.2	1639.9	1585.9	1509.3	1401.1
52.5°	1468.7	1466.5	1471.0	1482.2	1477.7	1482.2	1464.2	1441.7	1405.6	1331.3	1236.7
55°	1250.2	1250.2	1250.2	1263.7	1263.7	1263.7	1254.7	1241.2	1207.4	1153.3	1065.5
57.5°	1022.7	1024.9	1038.5	1040.7	1038.5	1043.0	1040.7	1027.2	1004.7	966.4	898.8
60°	831.2	831.2	838.0	844.8	842.5	844.8	844.8	838.0	815.5	784.0	729.9
62.5°	657.8	664.5	660.0	664.5	673.5	664.5	660.0	655.5	639.8	619.5	574.4
65°	497.8	502.4	502.4	504.6	500.0	502.4	493.4	486.6	477.6	455.1	425.8
67.5°	378.5	378.5	378.5	378.5	376.2	373.9	371.7	364.9	349.2	340.2	308.6
70°	290.6	277.0	277.0	277.0	277.0	279.4	272.6	263.6	259.1	243.3	220.8
72.5°	193.7	198.2	193.7	193.7	189.2	191.5	182.5	177.9	173.5	164.5	150.9
75°	139.6	128.4	132.9	135.2	128.4	132.9	123.9	114.9	114.9	108.1	101.3
77.5°	90.1	87.9	90.1	92.3	90.1	87.9	83.4	78.8	78.8	76.6	69.8
80°	65.4	63.0	63.0	63.0	60.8	63.0	58.6	58.6	54.1	51.8	47.3
82.5°	42.8	42.8	40.5	42.8	40.5	42.8	36.1	36.1	36.1	33.8	29.3
85°	29.3	24.8	24.8	27.1	22.5	27.1	24.8	22.5	20.3	20.3	18.0
87.5°	13.5	15.8	13.5	15.8	13.5	13.5	15.8	13.5	13.5	9.0	9.0
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°	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4
2.5°	4590.9	4593.1	4593.1	4602.2	4606.6	4608.9	4608.9	4626.9	4620.2	4624.7	4629.2
5°	4525.6	4539.0	4543.6	4543.6	4568.3	4577.3	4586.3	4606.6	4608.9	4622.4	4638.2
7.5°	4462.4	4478.2	4487.3	4507.5	4523.3	4539.0	4566.1	4579.6	4593.1	4611.2	4631.4
10°	4401.6	4419.7	4437.7	4453.5	4478.2	4498.5	4516.5	4548.0	4563.9	4588.6	4615.6
12.5°	4343.1	4367.9	4383.6	4410.6	4437.7	4455.7	4482.8	4512.1	4536.8	4561.6	4593.1
15°	4291.3	4320.6	4338.6	4367.9	4397.2	4421.9	4451.2	4487.3	4505.3	4534.6	4563.9
17.5°	4234.9	4266.5	4289.1	4316.0	4352.1	4379.1	4403.9	4439.9	4462.4	4494.0	4527.8
20°	4176.4	4207.9	4234.9	4262.0	4298.1	4325.0	4354.3	4390.4	4415.2	4446.7	4473.8
22.5°	4106.6	4135.9	4165.1	4196.6	4232.7	4255.2	4289.1	4320.6	4347.6	4376.9	4403.9
25°	4016.5	4052.5	4075.1	4104.3	4133.6	4158.3	4194.4	4225.9	4248.4	4275.5	4300.3
27.5°	3910.6	3937.7	3955.6	3980.4	4009.7	4032.2	4059.2	4090.8	4113.4	4138.1	4156.1
30°	3730.3	3755.2	3770.9	3788.9	3818.2	3838.5	3861.1	3890.3	3906.0	3924.1	3939.9
32.5°	3493.8	3514.1	3523.1	3536.6	3556.9	3577.2	3595.2	3620.0	3626.8	3638.0	3638.0
35°	3151.5	3155.9	3153.7	3158.2	3167.2	3178.5	3194.2	3210.0	3219.0	3219.0	3212.3
37.5°	2750.5	2723.5	2694.2	2671.6	2664.9	2660.3	2669.4	2676.1	2685.2	2689.6	2678.4
40°	2333.8	2272.9	2207.6	2149.0	2108.5	2090.5	2083.7	2088.2	2088.2	2103.9	2103.9
42.5°	1975.6	1880.9	1784.1	1696.2	1637.6	1592.7	1572.4	1572.4	1574.6	1585.9	1592.7
45°	1678.2	1558.8	1446.2	1349.4	1268.2	1209.6	1182.6	1175.9	1173.7	1178.1	1193.9
47.5°	1450.7	1326.8	1209.6	1090.3	1004.7	946.1	921.4	912.3	903.3	912.3	914.6
50°	1272.8	1144.4	1020.5	901.1	810.9	759.1	727.6	714.0	711.8	711.8	716.4
52.5°	1110.5	991.2	867.3	745.7	651.0	601.5	572.2	565.4	556.4	565.4	565.4
55°	957.3	838.0	716.4	601.5	522.6	470.8	443.8	434.8	430.2	437.0	437.0
57.5°	790.7	689.3	576.7	473.1	394.2	358.2	337.9	326.7	324.3	328.9	324.3
60°	648.8	563.2	466.3	371.7	310.9	272.6	256.8	252.3	247.7	252.3	252.3
62.5°	513.6	441.5	362.6	290.6	238.8	211.8	193.7	193.7	191.5	191.5	193.7
65°	380.7	324.3	268.1	207.2	166.7	146.4	132.9	132.9	130.6	132.9	130.6
67.5°	277.0	238.8	193.7	150.9	119.4	108.1	99.1	92.3	96.9	92.3	90.1
70°	202.8	171.2	139.6	114.9	92.3	81.1	74.4	72.0	67.6	67.6	67.6
72.5°	135.2	114.9	94.6	74.4	60.8	49.5	47.3	42.8	38.3	40.5	45.1
75°	90.1	76.6	67.6	54.1	40.5	40.5	27.1	27.1	22.5	27.1	20.3
77.5°	63.0	51.8	40.5	33.8	27.1	24.8	18.0	18.0	15.8	15.8	15.8
80°	45.1	38.3	29.3	24.8	18.0	18.0	15.8	13.5	11.2	11.2	13.5
82.5°	27.1	20.3	20.3	18.0	11.2	9.0	6.8	9.0	4.5	4.5	4.5
85°	15.8	13.5	11.2	6.8	4.5	4.5	2.2	0.0	2.2	2.2	0.0
87.5°	9.0	4.5	4.5	2.2	0.0	2.2	2.2	0.0	0.0	0.0	4.5
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°	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4
2.5°	4640.5	4638.2	4642.7	4642.7	4656.2	4653.9	4660.7	4660.7	4656.2	4658.5	4667.5
5°	4656.2	4663.0	4676.4	4687.8	4708.0	4717.1	4728.3	4739.6	4741.8	4748.6	4755.4
7.5°	4656.2	4678.8	4694.5	4714.7	4741.8	4757.6	4782.3	4802.6	4811.6	4822.9	4836.4
10°	4647.1	4669.7	4699.0	4721.5	4755.4	4780.1	4804.9	4836.4	4849.9	4867.9	4886.0
12.5°	4629.2	4653.9	4685.4	4714.7	4753.0	4775.6	4807.1	4836.4	4856.7	4881.5	4901.8
15°	4602.2	4631.4	4660.7	4690.0	4730.5	4757.6	4786.9	4820.6	4840.9	4867.9	4886.0
17.5°	4559.3	4590.9	4617.9	4644.9	4683.2	4714.7	4741.8	4773.3	4793.6	4816.2	4840.9
20°	4507.5	4536.8	4566.1	4588.6	4626.9	4653.9	4683.2	4712.5	4728.3	4732.8	4771.1
22.5°	4442.2	4462.4	4485.0	4521.0	4543.6	4568.3	4595.4	4622.4	4638.2	4663.0	4676.4
25°	4334.0	4354.3	4379.1	4394.9	4421.9	4442.2	4469.2	4498.5	4507.5	4525.6	4539.0
27.5°	4183.2	4194.4	4205.7	4219.1	4234.9	4246.2	4262.0	4275.5	4284.5	4293.5	4302.5
30°	3944.3	3944.3	3944.3	3935.3	3942.1	3948.9	3951.1	3948.9	3948.9	3946.6	3946.6
32.5°	3629.0	3611.0	3590.7	3572.7	3565.9	3556.9	3552.4	3545.6	3534.4	3527.6	3529.9
35°	3203.2	3162.7	3137.9	3115.4	3097.4	3083.9	3077.1	3070.3	3068.1	3059.1	3050.0
37.5°	2671.6	2642.3	2624.4	2610.8	2595.1	2581.5	2583.7	2586.1	2592.7	2588.3	2590.5
40°	2108.5	2101.7	2108.5	2092.7	2088.2	2092.7	2103.9	2119.8	2128.8	2137.8	2153.5
42.5°	1603.9	1615.1	1631.0	1631.0	1637.6	1646.7	1660.2	1685.0	1698.5	1714.2	1732.3
45°	1207.4	1220.9	1241.2	1247.9	1252.5	1263.7	1279.5	1299.8	1308.7	1322.3	1338.0
47.5°	930.4	939.4	950.6	961.9	973.1	977.6	993.4	993.4	1004.7	1013.7	1018.2
50°	725.4	734.3	743.3	750.1	754.7	761.4	765.9	772.6	774.9	779.4	781.6
52.5°	567.6	578.9	578.9	583.4	590.2	596.9	594.7	596.9	599.2	599.2	605.9
55°	443.8	443.8	450.5	450.5	455.1	452.8	455.1	455.1	455.1	455.1	457.3
57.5°	331.1	333.4	340.2	335.6	333.4	337.9	333.4	337.9	335.6	340.2	333.4
60°	254.5	254.5	256.8	256.8	259.1	259.1	259.1	256.8	256.8	254.5	254.5
62.5°	191.5	193.7	196.0	193.7	193.7	193.7	191.5	191.5	189.2	186.9	186.9
65°	128.4	126.2	130.6	126.2	128.4	128.4	126.2	128.4	121.6	123.9	121.6
67.5°	92.3	90.1	87.9	90.1	87.9	85.6	85.6	87.9	90.1	83.4	83.4
70°	60.8	63.0	60.8	63.0	65.4	65.4	63.0	60.8	63.0	58.6	60.8
72.5°	38.3	38.3	38.3	38.3	38.3	40.5	40.5	40.5	36.1	36.1	33.8
75°	18.0	24.8	20.3	18.0	24.8	24.8	22.5	22.5	20.3	20.3	20.3
77.5°	18.0	13.5	13.5	13.5	13.5	13.5	13.5	13.5	11.2	13.5	11.2
80°	9.0	9.0	9.0	6.8	9.0	9.0	11.2	9.0	9.0	6.8	11.2
82.5°	4.5	4.5	4.5	0.0	2.2	4.5	4.5	2.2	4.5	4.5	2.2
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: P248833

CATALOG NUMBER: LD8B90D010 ER8B90940 8LBSW0GPH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4
2.5°	4665.2	4663.0	4665.2	4667.5	4665.2	4663.0	4665.2	4667.5	4658.5	4656.2	4660.7
5°	4764.3	4764.3	4768.8	4771.1	4768.8	4764.3	4764.3	4755.4	4748.6	4741.8	4739.6
7.5°	4849.9	4854.5	4858.9	4861.1	4858.9	4854.5	4849.9	4836.4	4822.9	4811.6	4802.6
10°	4901.8	4908.5	4917.5	4922.0	4917.5	4908.5	4901.8	4886.0	4867.9	4849.9	4836.4
12.5°	4924.3	4931.1	4942.3	4940.1	4942.3	4931.1	4924.3	4901.8	4881.5	4856.7	4836.4
15°	4908.5	4917.5	4928.7	4933.3	4928.7	4917.5	4908.5	4886.0	4867.9	4840.9	4820.6
17.5°	4858.9	4872.5	4879.2	4886.0	4879.2	4872.5	4858.9	4840.9	4816.2	4793.6	4773.3
20°	4791.3	4800.4	4809.4	4811.6	4809.4	4800.4	4791.3	4771.1	4732.8	4728.3	4712.5
22.5°	4694.5	4701.3	4721.5	4714.7	4721.5	4701.3	4694.5	4676.4	4663.0	4638.2	4622.4
25°	4554.8	4561.6	4563.9	4566.1	4563.9	4561.6	4554.8	4539.0	4525.6	4507.5	4498.5
27.5°	4313.8	4313.8	4318.3	4320.6	4318.3	4313.8	4313.8	4302.5	4293.5	4284.5	4275.5
30°	3948.9	3948.9	3948.9	3960.2	3948.9	3948.9	3948.9	3946.6	3946.6	3948.9	3948.9
32.5°	3527.6	3523.1	3518.6	3523.1	3518.6	3523.1	3527.6	3529.9	3527.6	3534.4	3545.6
35°	3050.0	3047.8	3054.6	3045.6	3054.6	3047.8	3050.0	3050.0	3059.1	3068.1	3070.3
37.5°	2592.7	2588.3	2597.3	2588.3	2597.3	2588.3	2592.7	2590.5	2588.3	2592.7	2586.1
40°	2158.1	2162.5	2162.5	2180.6	2162.5	2162.5	2158.1	2153.5	2137.8	2128.8	2119.8
42.5°	1741.3	1754.8	1750.3	1763.8	1750.3	1754.8	1741.3	1732.3	1714.2	1698.5	1685.0
45°	1347.0	1356.1	1356.1	1360.6	1356.1	1356.1	1347.0	1338.0	1322.3	1308.7	1299.8
47.5°	1033.9	1033.9	1033.9	1036.2	1033.9	1033.9	1033.9	1018.2	1013.7	1004.7	993.4
50°	786.2	788.4	790.7	792.9	790.7	788.4	786.2	781.6	779.4	774.9	772.6
52.5°	603.7	605.9	601.5	605.9	601.5	605.9	603.7	605.9	599.2	599.2	596.9
55°	457.3	455.1	457.3	459.5	457.3	455.1	457.3	457.3	455.1	455.1	455.1
57.5°	335.6	331.1	331.1	331.1	331.1	331.1	335.6	333.4	340.2	335.6	337.9
60°	250.1	252.3	252.3	254.5	252.3	252.3	250.1	254.5	254.5	256.8	256.8
62.5°	184.7	191.5	186.9	191.5	186.9	191.5	184.7	186.9	186.9	189.2	191.5
65°	119.4	119.4	119.4	121.6	119.4	119.4	119.4	121.6	123.9	121.6	128.4
67.5°	81.1	83.4	87.9	85.6	87.9	83.4	81.1	83.4	83.4	90.1	87.9
70°	65.4	58.6	58.6	65.4	58.6	58.6	65.4	60.8	58.6	63.0	60.8
72.5°	38.3	33.8	38.3	38.3	38.3	33.8	38.3	33.8	36.1	36.1	40.5
75°	20.3	18.0	15.8	22.5	15.8	18.0	20.3	20.3	20.3	20.3	22.5
77.5°	13.5	11.2	15.8	15.8	15.8	11.2	13.5	11.2	13.5	11.2	13.5
80°	6.8	9.0	6.8	11.2	6.8	9.0	6.8	11.2	6.8	9.0	9.0
82.5°	2.2	4.5	4.5	4.5	4.5	4.5	2.2	2.2	4.5	4.5	2.2
85°	0.0	4.5	2.2	2.2	2.2	4.5	0.0	0.0	0.0	0.0	0.0
87.5°	2.2	0.0	0.0	2.2	0.0	0.0	2.2	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: P248833

CATALOG NUMBER: LD8B90D010 ER8B90940 8LBSW0GPH

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4
2.5°	4660.7	4653.9	4656.2	4642.7	4642.7	4638.2	4640.5	4629.2	4624.7	4620.2	4626.9
5°	4728.3	4717.1	4708.0	4687.8	4676.4	4663.0	4656.2	4638.2	4622.4	4608.9	4606.6
7.5°	4782.3	4757.6	4741.8	4714.7	4694.5	4678.8	4656.2	4631.4	4611.2	4593.1	4579.6
10°	4804.9	4780.1	4755.4	4721.5	4699.0	4669.7	4647.1	4615.6	4588.6	4563.9	4548.0
12.5°	4807.1	4775.6	4753.0	4714.7	4685.4	4653.9	4629.2	4593.1	4561.6	4536.8	4512.1
15°	4786.9	4757.6	4730.5	4690.0	4660.7	4631.4	4602.2	4563.9	4534.6	4505.3	4487.3
17.5°	4741.8	4714.7	4683.2	4644.9	4617.9	4590.9	4559.3	4527.8	4494.0	4462.4	4439.9
20°	4683.2	4653.9	4626.9	4588.6	4566.1	4536.8	4507.5	4473.8	4446.7	4415.2	4390.4
22.5°	4595.4	4568.3	4543.6	4521.0	4485.0	4462.4	4442.2	4403.9	4376.9	4347.6	4320.6
25°	4469.2	4442.2	4421.9	4394.9	4379.1	4354.3	4334.0	4300.3	4275.5	4248.4	4225.9
27.5°	4262.0	4246.2	4234.9	4219.1	4205.7	4194.4	4183.2	4156.1	4138.1	4113.4	4090.8
30°	3951.1	3948.9	3942.1	3935.3	3944.3	3944.3	3944.3	3939.9	3924.1	3906.0	3890.3
32.5°	3552.4	3556.9	3565.9	3572.7	3590.7	3611.0	3629.0	3638.0	3638.0	3626.8	3620.0
35°	3077.1	3083.9	3097.4	3115.4	3137.9	3162.7	3203.2	3212.3	3219.0	3219.0	3210.0
37.5°	2583.7	2581.5	2595.1	2610.8	2624.4	2642.3	2671.6	2678.4	2689.6	2685.2	2676.1
40°	2103.9	2092.7	2088.2	2092.7	2108.5	2101.7	2108.5	2103.9	2103.9	2088.2	2088.2
42.5°	1660.2	1646.7	1637.6	1631.0	1631.0	1615.1	1603.9	1592.7	1585.9	1574.6	1572.4
45°	1279.5	1263.7	1252.5	1247.9	1241.2	1220.9	1207.4	1193.9	1178.1	1173.7	1175.9
47.5°	993.4	977.6	973.1	961.9	950.6	939.4	930.4	914.6	912.3	903.3	912.3
50°	765.9	761.4	754.7	750.1	743.3	734.3	725.4	716.4	711.8	711.8	714.0
52.5°	594.7	596.9	590.2	583.4	578.9	578.9	567.6	565.4	565.4	556.4	565.4
55°	455.1	452.8	455.1	450.5	450.5	443.8	443.8	437.0	437.0	430.2	434.8
57.5°	333.4	337.9	333.4	335.6	340.2	333.4	331.1	324.3	328.9	324.3	326.7
60°	259.1	259.1	259.1	256.8	256.8	254.5	254.5	252.3	252.3	247.7	252.3
62.5°	191.5	193.7	193.7	193.7	196.0	193.7	191.5	193.7	191.5	191.5	193.7
65°	126.2	128.4	128.4	126.2	130.6	126.2	128.4	130.6	132.9	130.6	132.9
67.5°	85.6	85.6	87.9	90.1	87.9	90.1	92.3	90.1	92.3	96.9	92.3
70°	63.0	65.4	65.4	63.0	60.8	63.0	60.8	67.6	67.6	67.6	72.0
72.5°	40.5	40.5	38.3	38.3	38.3	38.3	38.3	45.1	40.5	38.3	42.8
75°	22.5	24.8	24.8	18.0	20.3	24.8	18.0	20.3	27.1	22.5	27.1
77.5°	13.5	13.5	13.5	13.5	13.5	13.5	18.0	15.8	15.8	15.8	18.0
80°	11.2	9.0	9.0	6.8	9.0	9.0	9.0	13.5	11.2	11.2	13.5
82.5°	4.5	4.5	2.2	0.0	4.5	4.5	4.5	4.5	4.5	4.5	9.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	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: P248833

CATALOG NUMBER: LD8B90D010 ER8B90940 8LBSW0GPH

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4
2.5°	4608.9	4608.9	4606.6	4602.2	4593.1	4593.1	4590.9	4584.1	4579.6	4577.3	4577.3
5°	4586.3	4577.3	4568.3	4543.6	4543.6	4539.0	4525.6	4516.5	4512.1	4500.7	4496.3
7.5°	4566.1	4539.0	4523.3	4507.5	4487.3	4478.2	4462.4	4455.7	4439.9	4428.7	4421.9
10°	4516.5	4498.5	4478.2	4453.5	4437.7	4419.7	4401.6	4388.2	4367.9	4356.6	4347.6
12.5°	4482.8	4455.7	4437.7	4410.6	4383.6	4367.9	4343.1	4327.4	4307.0	4284.5	4271.0
15°	4451.2	4421.9	4397.2	4367.9	4338.6	4320.6	4291.3	4273.3	4244.0	4221.5	4205.7
17.5°	4403.9	4379.1	4352.1	4316.0	4289.1	4266.5	4234.9	4212.5	4185.4	4156.1	4140.3
20°	4354.3	4325.0	4298.1	4262.0	4234.9	4207.9	4176.4	4151.6	4120.0	4093.0	4075.1
22.5°	4289.1	4255.2	4232.7	4196.6	4165.1	4135.9	4106.6	4077.3	4048.0	4025.5	4005.2
25°	4194.4	4158.3	4133.6	4104.3	4075.1	4052.5	4016.5	3998.5	3969.2	3948.9	3928.6
27.5°	4059.2	4032.2	4009.7	3980.4	3955.6	3937.7	3910.6	3892.6	3867.7	3849.8	3834.0
30°	3861.1	3838.5	3818.2	3788.9	3770.9	3755.2	3730.3	3714.6	3696.6	3676.3	3671.8
32.5°	3595.2	3577.2	3556.9	3536.6	3523.1	3514.1	3493.8	3484.8	3466.8	3455.5	3444.3
35°	3194.2	3178.5	3167.2	3158.2	3153.7	3155.9	3151.5	3160.5	3164.9	3162.7	3164.9
37.5°	2669.4	2660.3	2664.9	2671.6	2694.2	2723.5	2750.5	2791.0	2818.1	2845.1	2869.9
40°	2083.7	2090.5	2108.5	2149.0	2207.6	2272.9	2333.8	2410.4	2486.9	2541.0	2590.5
42.5°	1572.4	1592.7	1637.6	1696.2	1784.1	1880.9	1975.6	2088.2	2180.6	2270.6	2333.8
45°	1182.6	1209.6	1268.2	1349.4	1446.2	1558.8	1678.2	1804.3	1914.8	2007.1	2076.9
47.5°	921.4	946.1	1004.7	1090.3	1209.6	1326.8	1450.7	1581.3	1696.2	1786.4	1847.2
50°	727.6	759.1	810.9	901.1	1020.5	1144.4	1272.8	1401.1	1509.3	1585.9	1639.9
52.5°	572.2	601.5	651.0	745.7	867.3	991.2	1110.5	1236.7	1331.3	1405.6	1441.7
55°	443.8	470.8	522.6	601.5	716.4	838.0	957.3	1065.5	1153.3	1207.4	1241.2
57.5°	337.9	358.2	394.2	473.1	576.7	689.3	790.7	898.8	966.4	1004.7	1027.2
60°	256.8	272.6	310.9	371.7	466.3	563.2	648.8	729.9	784.0	815.5	838.0
62.5°	193.7	211.8	238.8	290.6	362.6	441.5	513.6	574.4	619.5	639.8	655.5
65°	132.9	146.4	166.7	207.2	268.1	324.3	380.7	425.8	455.1	477.6	486.6
67.5°	99.1	108.1	119.4	150.9	193.7	238.8	277.0	308.6	340.2	349.2	364.9
70°	74.4	81.1	92.3	114.9	139.6	171.2	202.8	220.8	243.3	259.1	263.6
72.5°	47.3	49.5	60.8	74.4	94.6	114.9	135.2	150.9	164.5	173.5	177.9
75°	27.1	40.5	40.5	54.1	67.6	76.6	90.1	101.3	108.1	114.9	114.9
77.5°	18.0	24.8	27.1	33.8	40.5	51.8	63.0	69.8	76.6	78.8	78.8
80°	15.8	18.0	18.0	24.8	29.3	38.3	45.1	47.3	51.8	54.1	58.6
82.5°	6.8	9.0	11.2	18.0	20.3	20.3	27.1	29.3	33.8	36.1	36.1
85°	2.2	4.5	4.5	6.8	11.2	13.5	15.8	18.0	20.3	20.3	22.5
87.5°	2.2	2.2	0.0	2.2	4.5	4.5	9.0	9.0	9.0	13.5	13.5
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: P248833

CATALOG NUMBER: LD8B90D010 ER8B90940 8LBSW0GPH

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4	4613.4
2.5°	4572.9	4575.1	4566.1	4563.9	4559.3	4561.6	4566.1
5°	4489.5	4491.7	4482.8	4473.8	4473.8	4471.4	4473.8
7.5°	4410.6	4412.9	4399.4	4394.9	4385.9	4388.2	4388.2
10°	4331.8	4331.8	4311.6	4309.3	4302.5	4300.3	4300.3
12.5°	4255.2	4248.4	4232.7	4223.7	4228.2	4214.7	4214.7
15°	4187.6	4176.4	4156.1	4149.3	4138.1	4133.6	4133.6
17.5°	4117.8	4108.8	4090.8	4077.3	4063.8	4061.5	4063.8
20°	4050.2	4041.2	4018.7	4009.7	3998.5	3998.5	3993.9
22.5°	3982.6	3973.6	3953.4	3946.6	3930.9	3930.9	3933.1
25°	3912.8	3906.0	3883.5	3879.1	3876.8	3867.7	3872.3
27.5°	3818.2	3813.7	3795.7	3788.9	3779.9	3777.7	3782.2
30°	3644.7	3638.0	3624.5	3617.8	3602.0	3604.2	3608.7
32.5°	3428.5	3419.5	3401.4	3394.7	3381.2	3376.7	3378.9
35°	3158.2	3151.5	3135.7	3135.7	3122.2	3117.6	3122.2
37.5°	2883.4	2890.1	2883.4	2890.1	2883.4	2881.1	2883.4
40°	2624.4	2649.1	2653.6	2678.4	2669.4	2682.9	2680.6
42.5°	2376.5	2417.0	2432.9	2453.1	2448.7	2457.6	2464.4
45°	2126.4	2160.3	2176.1	2189.6	2191.8	2196.4	2198.6
47.5°	1889.9	1917.0	1919.2	1935.0	1932.8	1932.8	1939.5
50°	1669.2	1687.2	1691.7	1703.0	1694.0	1689.5	1691.7
52.5°	1464.2	1482.2	1477.7	1482.2	1471.0	1466.5	1468.7
55°	1254.7	1263.7	1263.7	1263.7	1250.2	1250.2	1250.2
57.5°	1040.7	1043.0	1038.5	1040.7	1038.5	1024.9	1022.7
60°	844.8	844.8	842.5	844.8	838.0	831.2	831.2
62.5°	660.0	664.5	673.5	664.5	660.0	664.5	657.8
65°	493.4	502.4	500.0	504.6	502.4	502.4	497.8
67.5°	371.7	373.9	376.2	378.5	378.5	378.5	378.5
70°	272.6	279.4	277.0	277.0	277.0	277.0	290.6
72.5°	182.5	191.5	189.2	193.7	193.7	198.2	193.7
75°	123.9	132.9	128.4	135.2	132.9	128.4	139.6
77.5°	83.4	87.9	90.1	92.3	90.1	87.9	90.1
80°	58.6	63.0	60.8	63.0	63.0	63.0	65.4
82.5°	36.1	42.8	40.5	42.8	40.5	42.8	42.8
85°	24.8	27.1	22.5	27.1	24.8	24.8	29.3
87.5°	15.8	13.5	13.5	15.8	13.5	15.8	13.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)