

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: P248860

Luminaire Tested: **LD8B90D010 ER8B90930 8LBSW0GPH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P248860
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 ER8B90930 8LBSW0GPH
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT
97 CRI 3000 CCT WITH GRAPHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7204.7 lumens
Efficiency: N/A
Efficacy: 83.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.23 / 1.15
Luminous Opening: Point Source (0' x 0' x 0')
CIE Type: Direct

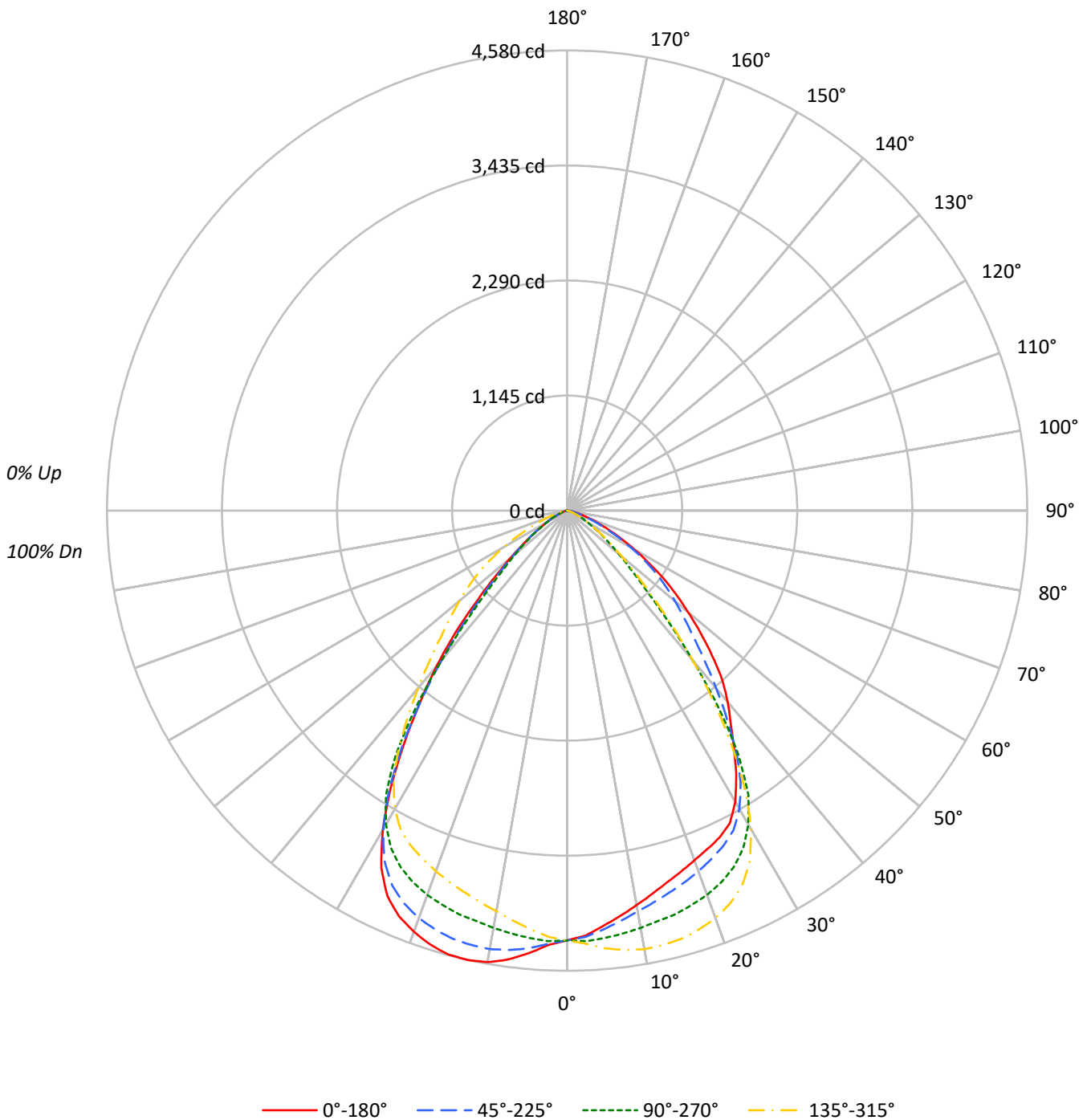
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	Luminaire represents a point source (luminous area is zero).			
5°	No luminance values can be calculated.			
10°				
15°				
20°				
25°				
30°				
35°				
40°				
45°				
50°				
55°				
60°				
65°				
70°				
75°				
80°				
85°				



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	407.1	5.7
10°-20°	1178.9	16.4
20°-30°	1785.1	24.8
30°-40°	1789.1	24.8
40°-50°	1123.5	15.6
50°-60°	598.7	8.3
60°-70°	246.2	3.4
70°-80°	65.0	0.9
80°-90°	11.0	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°	3371.1	46.8
0°-40°	5160.2	71.6
0°-60°	6882.4	95.5
0°-90°	7204.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7204.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4277	4277	4277	4277	4277	
5°	4148	4271	4423	4271	4148	391
15°	3832	4160	4574	4160	3832	1084
25°	3590	3918	4233	3918	3590	1647
35°	2895	2976	2824	2976	2895	1813
45°	2038	1090	1262	1090	2038	1568
55°	1159	403	426	403	1159	1033
65°	462	123	113	123	462	479
75°	130	25	21	25	130	147
85°	27	0	2	0	27	30
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°	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2
2.5°	4233.3	4229.1	4227.1	4231.3	4233.3	4241.6	4239.6	4243.8	4243.8	4245.9	4250.0
5°	4147.7	4145.6	4147.7	4147.7	4156.1	4164.4	4162.4	4168.7	4172.7	4183.2	4187.4
7.5°	4068.3	4068.3	4066.2	4074.6	4078.8	4091.3	4089.2	4099.7	4106.0	4116.3	4131.0
10°	3986.8	3986.8	3989.0	3995.2	3997.4	4016.1	4016.1	4030.8	4039.1	4049.5	4068.3
12.5°	3907.6	3907.6	3920.1	3915.9	3924.2	3938.9	3945.1	3959.7	3972.3	3993.1	4011.9
15°	3832.4	3832.4	3836.5	3846.9	3853.2	3872.0	3882.5	3899.2	3913.9	3934.7	3961.8
17.5°	3767.6	3765.6	3767.6	3780.1	3792.7	3809.4	3817.7	3838.6	3853.2	3880.3	3905.5
20°	3702.9	3707.0	3707.0	3717.5	3725.9	3746.7	3755.0	3778.1	3794.8	3819.8	3849.1
22.5°	3646.5	3644.4	3644.4	3659.1	3665.3	3684.1	3692.3	3713.3	3732.1	3753.0	3780.1
25°	3590.1	3585.9	3594.3	3596.4	3600.4	3621.4	3627.7	3642.2	3661.1	3679.9	3707.0
27.5°	3506.5	3502.5	3504.5	3512.8	3519.0	3535.7	3540.0	3554.6	3569.2	3585.9	3608.9
30°	3345.7	3341.6	3339.5	3354.1	3360.4	3372.9	3379.1	3404.3	3408.4	3427.2	3443.8
32.5°	3132.6	3130.6	3134.8	3147.3	3153.6	3170.3	3178.7	3193.3	3203.7	3214.1	3230.8
35°	2894.6	2890.4	2894.6	2907.2	2907.2	2921.8	2928.1	2934.2	2932.2	2934.2	2930.2
37.5°	2673.2	2671.1	2673.2	2679.5	2673.2	2679.5	2673.2	2660.7	2637.8	2612.7	2587.6
40°	2485.3	2487.4	2474.8	2483.2	2460.1	2456.0	2433.1	2401.7	2355.8	2305.7	2234.7
42.5°	2284.8	2278.5	2270.2	2274.3	2255.6	2240.9	2203.3	2163.6	2105.1	2021.7	1936.0
45°	2038.3	2036.3	2032.0	2030.0	2017.5	2002.9	1971.5	1925.5	1860.9	1775.2	1672.9
47.5°	1798.2	1791.9	1791.9	1793.9	1779.4	1777.2	1752.2	1712.6	1656.2	1572.7	1466.2
50°	1568.4	1566.4	1570.5	1578.9	1568.4	1564.2	1547.5	1520.4	1470.3	1399.3	1299.0
52.5°	1361.7	1359.5	1363.8	1374.2	1370.0	1374.2	1357.5	1336.7	1303.2	1234.2	1146.6
55°	1159.1	1159.1	1159.1	1171.6	1171.6	1171.6	1163.3	1150.8	1119.4	1069.3	987.9
57.5°	948.1	950.3	962.8	964.8	962.8	967.0	964.8	952.3	931.6	896.0	833.4
60°	770.7	770.7	777.0	783.2	781.1	783.2	783.2	777.0	756.0	726.9	676.7
62.5°	609.8	616.1	611.8	616.1	624.4	616.1	611.8	607.8	593.1	574.3	532.6
65°	461.5	465.8	465.8	467.8	463.6	465.8	457.4	451.1	442.8	421.9	394.7
67.5°	350.9	350.9	350.9	350.9	348.7	346.7	344.6	338.3	323.7	315.4	286.1
70°	269.4	256.8	256.8	256.8	256.8	259.0	252.8	244.4	240.2	225.5	204.7
72.5°	179.6	183.8	179.6	179.6	175.4	177.6	169.2	165.0	160.9	152.5	139.9
75°	129.5	119.1	123.2	125.3	119.1	123.2	114.9	106.5	106.5	100.2	93.9
77.5°	83.5	81.5	83.5	85.6	83.5	81.5	77.2	73.1	73.1	71.0	64.7
80°	60.6	58.4	58.4	58.4	56.4	58.4	54.4	54.4	50.1	48.1	43.8
82.5°	39.7	39.7	37.6	39.7	37.6	39.7	33.4	33.4	33.4	31.3	27.1
85°	27.1	23.0	23.0	25.1	20.9	25.1	23.0	20.9	18.8	18.8	16.7
87.5°	12.6	14.6	12.6	14.6	12.6	12.6	14.6	12.6	12.6	8.3	8.3
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°	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2
2.5°	4256.3	4258.3	4258.3	4266.8	4270.9	4272.9	4272.9	4289.7	4283.5	4287.7	4291.7
5°	4195.8	4208.2	4212.5	4212.5	4235.4	4243.8	4252.1	4270.9	4272.9	4285.5	4300.2
7.5°	4137.3	4151.8	4160.3	4179.0	4193.7	4208.2	4233.3	4245.9	4258.3	4275.2	4293.9
10°	4080.9	4097.6	4114.3	4128.9	4151.8	4170.7	4187.4	4216.5	4231.3	4254.2	4279.2
12.5°	4026.6	4049.5	4064.2	4089.2	4114.3	4131.0	4156.1	4183.2	4206.2	4229.1	4258.3
15°	3978.5	4005.7	4022.4	4049.5	4076.7	4099.7	4126.8	4160.3	4177.0	4204.1	4231.3
17.5°	3926.3	3955.6	3976.5	4001.5	4034.9	4059.9	4083.0	4116.3	4137.3	4166.4	4197.8
20°	3872.0	3901.3	3926.3	3951.4	3984.8	4009.8	4037.1	4070.5	4093.4	4122.6	4147.7
22.5°	3807.3	3834.5	3861.5	3890.8	3924.2	3945.1	3976.5	4005.7	4030.8	4057.9	4083.0
25°	3723.7	3757.1	3778.1	3805.1	3832.4	3855.2	3888.7	3917.9	3938.9	3964.0	3986.8
27.5°	3625.5	3650.6	3667.4	3690.3	3717.5	3738.3	3763.4	3792.7	3813.5	3836.5	3853.2
30°	3458.5	3481.5	3496.2	3512.8	3540.0	3558.8	3579.7	3606.7	3621.4	3638.1	3652.8
32.5°	3239.1	3258.0	3266.4	3278.9	3297.8	3316.5	3333.2	3356.2	3362.4	3372.9	3372.9
35°	2921.8	2925.9	2923.9	2928.1	2936.5	2946.8	2961.5	2976.0	2984.4	2984.4	2978.2
37.5°	2550.1	2524.9	2497.8	2477.0	2470.7	2466.4	2474.8	2481.1	2489.5	2493.7	2483.2
40°	2163.6	2107.3	2046.7	1992.4	1954.8	1938.1	1931.8	1936.0	1936.0	1950.5	1950.5
42.5°	1831.6	1743.8	1654.1	1572.7	1518.3	1476.6	1457.7	1457.7	1459.9	1470.3	1476.6
45°	1555.9	1445.2	1340.7	1251.0	1175.8	1121.4	1096.5	1090.2	1088.2	1092.3	1106.9
47.5°	1345.0	1230.2	1121.4	1010.8	931.6	877.2	854.2	845.8	837.5	845.8	847.9
50°	1180.0	1060.9	946.1	835.4	751.9	703.8	674.5	662.0	659.9	659.9	664.2
52.5°	1029.5	919.0	804.1	691.3	603.5	557.7	530.5	524.2	515.9	524.2	524.2
55°	887.6	777.0	664.2	557.7	484.5	436.5	411.4	403.1	398.9	405.1	405.1
57.5°	733.1	639.1	534.7	438.5	365.6	332.0	313.2	302.9	300.7	304.9	300.7
60°	601.5	522.2	432.3	344.6	288.2	252.8	238.1	234.0	229.7	234.0	234.0
62.5°	476.2	409.4	336.2	269.4	221.4	196.3	179.6	179.6	177.6	177.6	179.6
65°	353.0	300.7	248.5	192.1	154.6	135.8	123.2	123.2	121.1	123.2	121.1
67.5°	256.8	221.4	179.6	139.9	110.8	100.2	91.9	85.6	89.8	85.6	83.5
70°	188.0	158.7	129.5	106.5	85.6	75.2	68.9	66.8	62.7	62.7	62.7
72.5°	125.3	106.5	87.7	68.9	56.4	45.8	43.8	39.7	35.5	37.6	41.8
75°	83.5	71.0	62.7	50.1	37.6	37.6	25.1	25.1	20.9	25.1	18.8
77.5°	58.4	48.1	37.6	31.3	25.1	23.0	16.7	16.7	14.6	14.6	14.6
80°	41.8	35.5	27.1	23.0	16.7	16.7	14.6	12.6	10.4	10.4	12.6
82.5°	25.1	18.8	18.8	16.7	10.4	8.3	6.3	8.3	4.3	4.3	4.3
85°	14.6	12.6	10.4	6.3	4.3	4.3	2.0	0.0	2.0	2.0	0.0
87.5°	8.3	4.3	4.3	2.0	0.0	2.0	2.0	0.0	0.0	0.0	4.3
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°	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2
2.5°	4302.3	4300.2	4304.3	4304.3	4316.9	4314.7	4321.0	4321.0	4316.9	4319.0	4327.3
5°	4316.9	4323.1	4335.7	4346.1	4364.8	4373.2	4383.7	4394.2	4396.2	4402.5	4408.8
7.5°	4316.9	4337.8	4352.4	4371.1	4396.2	4410.9	4433.8	4452.6	4461.0	4471.3	4483.9
10°	4308.5	4329.4	4356.5	4377.4	4408.8	4431.8	4454.7	4483.9	4496.4	4513.1	4530.0
12.5°	4291.7	4314.7	4344.0	4371.1	4406.7	4427.5	4456.8	4483.9	4502.7	4525.7	4544.5
15°	4266.8	4293.9	4321.0	4348.1	4385.8	4410.9	4438.0	4469.3	4488.1	4513.1	4530.0
17.5°	4227.1	4256.3	4281.4	4306.4	4341.9	4371.1	4396.2	4425.5	4444.3	4465.2	4488.1
20°	4179.0	4206.2	4233.3	4254.2	4289.7	4314.7	4341.9	4369.1	4383.7	4387.9	4423.4
22.5°	4118.4	4137.3	4158.1	4191.5	4212.5	4235.4	4260.5	4285.5	4300.2	4323.1	4335.7
25°	4018.2	4037.1	4059.9	4074.6	4099.7	4118.4	4143.6	4170.7	4179.0	4195.8	4208.2
27.5°	3878.3	3888.7	3899.2	3911.6	3926.3	3936.7	3951.4	3964.0	3972.3	3980.6	3989.0
30°	3656.9	3656.9	3656.9	3648.5	3654.8	3661.1	3663.2	3661.1	3661.1	3659.1	3659.1
32.5°	3364.5	3347.9	3329.0	3312.3	3306.1	3297.8	3293.5	3287.2	3276.8	3270.5	3272.6
35°	2969.8	2932.2	2909.2	2888.4	2871.7	2859.1	2852.8	2846.6	2844.5	2836.1	2827.7
37.5°	2477.0	2449.8	2433.1	2420.6	2405.9	2393.3	2395.5	2397.6	2403.8	2399.6	2401.7
40°	1954.8	1948.5	1954.8	1940.2	1936.0	1940.2	1950.5	1965.3	1973.6	1981.9	1996.6
42.5°	1487.0	1497.4	1512.1	1512.1	1518.3	1526.7	1539.1	1562.2	1574.7	1589.2	1606.1
45°	1119.4	1132.0	1150.8	1157.0	1161.2	1171.6	1186.2	1205.1	1213.4	1225.9	1240.5
47.5°	862.6	870.9	881.3	891.8	902.2	906.4	921.0	921.0	931.6	939.8	944.0
50°	672.5	680.8	689.2	695.5	699.6	705.9	710.0	716.3	718.4	722.6	724.6
52.5°	526.3	536.7	536.7	540.9	547.2	553.4	551.4	553.4	555.5	555.5	561.7
55°	411.4	411.4	417.7	417.7	421.9	419.7	421.9	421.9	421.9	421.9	424.0
57.5°	306.9	309.2	315.4	311.2	309.2	313.2	309.2	313.2	311.2	315.4	309.2
60°	236.0	236.0	238.1	238.1	240.2	240.2	240.2	238.1	238.1	236.0	236.0
62.5°	177.6	179.6	181.7	179.6	179.6	179.6	177.6	177.6	175.4	173.3	173.3
65°	119.1	117.0	121.1	117.0	119.1	119.1	117.0	119.1	112.8	114.9	112.8
67.5°	85.6	83.5	81.5	83.5	81.5	79.4	79.4	81.5	83.5	77.2	77.2
70°	56.4	58.4	56.4	58.4	60.6	60.6	58.4	56.4	58.4	54.4	56.4
72.5°	35.5	35.5	35.5	35.5	35.5	37.6	37.6	37.6	33.4	33.4	31.3
75°	16.7	23.0	18.8	16.7	23.0	23.0	20.9	20.9	18.8	18.8	18.8
77.5°	16.7	12.6	12.6	12.6	12.6	12.6	12.6	12.6	10.4	12.6	10.4
80°	8.3	8.3	8.3	6.3	8.3	8.3	10.4	8.3	8.3	6.3	10.4
82.5°	4.3	4.3	4.3	0.0	2.0	4.3	4.3	2.0	4.3	4.3	2.0
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: P248860

CATALOG NUMBER: LD8B90D010 ER8B90930 8LBSW0GPH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2
2.5°	4325.3	4323.1	4325.3	4327.3	4325.3	4323.1	4325.3	4327.3	4319.0	4316.9	4321.0
5°	4417.1	4417.1	4421.2	4423.4	4421.2	4417.1	4417.1	4408.8	4402.5	4396.2	4394.2
7.5°	4496.4	4500.7	4504.9	4506.9	4504.9	4500.7	4496.4	4483.9	4471.3	4461.0	4452.6
10°	4544.5	4550.8	4559.1	4563.3	4559.1	4550.8	4544.5	4530.0	4513.1	4496.4	4483.9
12.5°	4565.4	4571.7	4582.1	4580.1	4582.1	4571.7	4565.4	4544.5	4525.7	4502.7	4483.9
15°	4550.8	4559.1	4569.5	4573.8	4569.5	4559.1	4550.8	4530.0	4513.1	4488.1	4469.3
17.5°	4504.9	4517.4	4523.7	4530.0	4523.7	4517.4	4504.9	4488.1	4465.2	4444.3	4425.5
20°	4442.2	4450.6	4458.9	4461.0	4458.9	4450.6	4442.2	4423.4	4387.9	4383.7	4369.1
22.5°	4352.4	4358.7	4377.4	4371.1	4377.4	4358.7	4352.4	4335.7	4323.1	4300.2	4285.5
25°	4222.8	4229.1	4231.3	4233.3	4231.3	4229.1	4222.8	4208.2	4195.8	4179.0	4170.7
27.5°	3999.4	3999.4	4003.5	4005.7	4003.5	3999.4	3999.4	3989.0	3980.6	3972.3	3964.0
30°	3661.1	3661.1	3661.1	3671.6	3661.1	3661.1	3661.1	3659.1	3659.1	3661.1	3661.1
32.5°	3270.5	3266.4	3262.2	3266.4	3262.2	3266.4	3270.5	3272.6	3270.5	3276.8	3287.2
35°	2827.7	2825.7	2832.0	2823.7	2832.0	2825.7	2827.7	2827.7	2836.1	2844.5	2846.6
37.5°	2403.8	2399.6	2408.0	2399.6	2408.0	2399.6	2403.8	2401.7	2399.6	2403.8	2397.6
40°	2000.8	2004.9	2004.9	2021.7	2004.9	2004.9	2000.8	1996.6	1981.9	1973.6	1965.3
42.5°	1614.4	1626.9	1622.8	1635.3	1622.8	1626.9	1614.4	1606.1	1589.2	1574.7	1562.2
45°	1248.9	1257.3	1257.3	1261.5	1257.3	1257.3	1248.9	1240.5	1225.9	1213.4	1205.1
47.5°	958.6	958.6	958.6	960.7	958.6	958.6	958.6	944.0	939.8	931.6	921.0
50°	728.9	730.9	733.1	735.2	733.1	730.9	728.9	724.6	722.6	718.4	716.3
52.5°	559.7	561.7	557.7	561.7	557.7	561.7	559.7	561.7	555.5	555.5	553.4
55°	424.0	421.9	424.0	426.0	424.0	421.9	424.0	424.0	421.9	421.9	421.9
57.5°	311.2	306.9	306.9	306.9	306.9	306.9	311.2	309.2	315.4	311.2	313.2
60°	231.8	234.0	234.0	236.0	234.0	234.0	231.8	236.0	236.0	238.1	238.1
62.5°	171.3	177.6	173.3	177.6	173.3	177.6	171.3	173.3	173.3	175.4	177.6
65°	110.8	110.8	110.8	112.8	110.8	110.8	110.8	112.8	114.9	112.8	119.1
67.5°	75.2	77.2	81.5	79.4	81.5	77.2	75.2	77.2	77.2	83.5	81.5
70°	60.6	54.4	54.4	60.6	54.4	54.4	60.6	56.4	54.4	58.4	56.4
72.5°	35.5	31.3	35.5	35.5	35.5	31.3	35.5	31.3	33.4	33.4	37.6
75°	18.8	16.7	14.6	20.9	14.6	16.7	18.8	18.8	18.8	18.8	20.9
77.5°	12.6	10.4	14.6	14.6	14.6	10.4	12.6	10.4	12.6	10.4	12.6
80°	6.3	8.3	6.3	10.4	6.3	8.3	6.3	10.4	6.3	8.3	8.3
82.5°	2.0	4.3	4.3	4.3	4.3	4.3	2.0	2.0	4.3	4.3	2.0
85°	0.0	4.3	2.0	2.0	2.0	4.3	0.0	0.0	0.0	0.0	0.0
87.5°	2.0	0.0	0.0	2.0	0.0	0.0	2.0	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: P248860

CATALOG NUMBER: LD8B90D010 ER8B90930 8LBSW0GPH

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2
2.5°	4321.0	4314.7	4316.9	4304.3	4304.3	4300.2	4302.3	4291.7	4287.7	4283.5	4289.7
5°	4383.7	4373.2	4364.8	4346.1	4335.7	4323.1	4316.9	4300.2	4285.5	4272.9	4270.9
7.5°	4433.8	4410.9	4396.2	4371.1	4352.4	4337.8	4316.9	4293.9	4275.2	4258.3	4245.9
10°	4454.7	4431.8	4408.8	4377.4	4356.5	4329.4	4308.5	4279.2	4254.2	4231.3	4216.5
12.5°	4456.8	4427.5	4406.7	4371.1	4344.0	4314.7	4291.7	4258.3	4229.1	4206.2	4183.2
15°	4438.0	4410.9	4385.8	4348.1	4321.0	4293.9	4266.8	4231.3	4204.1	4177.0	4160.3
17.5°	4396.2	4371.1	4341.9	4306.4	4281.4	4256.3	4227.1	4197.8	4166.4	4137.3	4116.3
20°	4341.9	4314.7	4289.7	4254.2	4233.3	4206.2	4179.0	4147.7	4122.6	4093.4	4070.5
22.5°	4260.5	4235.4	4212.5	4191.5	4158.1	4137.3	4118.4	4083.0	4057.9	4030.8	4005.7
25°	4143.6	4118.4	4099.7	4074.6	4059.9	4037.1	4018.2	3986.8	3964.0	3938.9	3917.9
27.5°	3951.4	3936.7	3926.3	3911.6	3899.2	3888.7	3878.3	3853.2	3836.5	3813.5	3792.7
30°	3663.2	3661.1	3654.8	3648.5	3656.9	3656.9	3656.9	3652.8	3638.1	3621.4	3606.7
32.5°	3293.5	3297.8	3306.1	3312.3	3329.0	3347.9	3364.5	3372.9	3372.9	3362.4	3356.2
35°	2852.8	2859.1	2871.7	2888.4	2909.2	2932.2	2969.8	2978.2	2984.4	2984.4	2976.0
37.5°	2395.5	2393.3	2405.9	2420.6	2433.1	2449.8	2477.0	2483.2	2493.7	2489.5	2481.1
40°	1950.5	1940.2	1936.0	1940.2	1954.8	1948.5	1954.8	1950.5	1950.5	1936.0	1936.0
42.5°	1539.1	1526.7	1518.3	1512.1	1512.1	1497.4	1487.0	1476.6	1470.3	1459.9	1457.7
45°	1186.2	1171.6	1161.2	1157.0	1150.8	1132.0	1119.4	1106.9	1092.3	1088.2	1090.2
47.5°	921.0	906.4	902.2	891.8	881.3	870.9	862.6	847.9	845.8	837.5	845.8
50°	710.0	705.9	699.6	695.5	689.2	680.8	672.5	664.2	659.9	659.9	662.0
52.5°	551.4	553.4	547.2	540.9	536.7	536.7	526.3	524.2	524.2	515.9	524.2
55°	421.9	419.7	421.9	417.7	417.7	411.4	411.4	405.1	405.1	398.9	403.1
57.5°	309.2	313.2	309.2	311.2	315.4	309.2	306.9	300.7	304.9	300.7	302.9
60°	240.2	240.2	240.2	238.1	238.1	236.0	236.0	234.0	234.0	229.7	234.0
62.5°	177.6	179.6	179.6	179.6	181.7	179.6	177.6	179.6	177.6	177.6	179.6
65°	117.0	119.1	119.1	117.0	121.1	117.0	119.1	121.1	123.2	121.1	123.2
67.5°	79.4	79.4	81.5	83.5	81.5	83.5	85.6	83.5	85.6	89.8	85.6
70°	58.4	60.6	60.6	58.4	56.4	58.4	56.4	62.7	62.7	62.7	66.8
72.5°	37.6	37.6	35.5	35.5	35.5	35.5	35.5	41.8	37.6	35.5	39.7
75°	20.9	23.0	23.0	16.7	18.8	23.0	16.7	18.8	25.1	20.9	25.1
77.5°	12.6	12.6	12.6	12.6	12.6	12.6	16.7	14.6	14.6	14.6	16.7
80°	10.4	8.3	8.3	6.3	8.3	8.3	8.3	12.6	10.4	10.4	12.6
82.5°	4.3	4.3	2.0	0.0	4.3	4.3	4.3	4.3	4.3	4.3	8.3
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	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: P248860

CATALOG NUMBER: LD8B90D010 ER8B90930 8LBSW0GPH

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2
2.5°	4272.9	4272.9	4270.9	4266.8	4258.3	4258.3	4256.3	4250.0	4245.9	4243.8	4243.8
5°	4252.1	4243.8	4235.4	4212.5	4212.5	4208.2	4195.8	4187.4	4183.2	4172.7	4168.7
7.5°	4233.3	4208.2	4193.7	4179.0	4160.3	4151.8	4137.3	4131.0	4116.3	4106.0	4099.7
10°	4187.4	4170.7	4151.8	4128.9	4114.3	4097.6	4080.9	4068.3	4049.5	4039.1	4030.8
12.5°	4156.1	4131.0	4114.3	4089.2	4064.2	4049.5	4026.6	4011.9	3993.1	3972.3	3959.7
15°	4126.8	4099.7	4076.7	4049.5	4022.4	4005.7	3978.5	3961.8	3934.7	3913.9	3899.2
17.5°	4083.0	4059.9	4034.9	4001.5	3976.5	3955.6	3926.3	3905.5	3880.3	3853.2	3838.6
20°	4037.1	4009.8	3984.8	3951.4	3926.3	3901.3	3872.0	3849.1	3819.8	3794.8	3778.1
22.5°	3976.5	3945.1	3924.2	3890.8	3861.5	3834.5	3807.3	3780.1	3753.0	3732.1	3713.3
25°	3888.7	3855.2	3832.4	3805.1	3778.1	3757.1	3723.7	3707.0	3679.9	3661.1	3642.2
27.5°	3763.4	3738.3	3717.5	3690.3	3667.4	3650.6	3625.5	3608.9	3585.9	3569.2	3554.6
30°	3579.7	3558.8	3540.0	3512.8	3496.2	3481.5	3458.5	3443.8	3427.2	3408.4	3404.3
32.5°	3333.2	3316.5	3297.8	3278.9	3266.4	3258.0	3239.1	3230.8	3214.1	3203.7	3193.3
35°	2961.5	2946.8	2936.5	2928.1	2923.9	2925.9	2921.8	2930.2	2934.2	2932.2	2934.2
37.5°	2474.8	2466.4	2470.7	2477.0	2497.8	2524.9	2550.1	2587.6	2612.7	2637.8	2660.7
40°	1931.8	1938.1	1954.8	1992.4	2046.7	2107.3	2163.6	2234.7	2305.7	2355.8	2401.7
42.5°	1457.7	1476.6	1518.3	1572.7	1654.1	1743.8	1831.6	1936.0	2021.7	2105.1	2163.6
45°	1096.5	1121.4	1175.8	1251.0	1340.7	1445.2	1555.9	1672.9	1775.2	1860.9	1925.5
47.5°	854.2	877.2	931.6	1010.8	1121.4	1230.2	1345.0	1466.2	1572.7	1656.2	1712.6
50°	674.5	703.8	751.9	835.4	946.1	1060.9	1180.0	1299.0	1399.3	1470.3	1520.4
52.5°	530.5	557.7	603.5	691.3	804.1	919.0	1029.5	1146.6	1234.2	1303.2	1336.7
55°	411.4	436.5	484.5	557.7	664.2	777.0	887.6	987.9	1069.3	1119.4	1150.8
57.5°	313.2	332.0	365.6	438.5	534.7	639.1	733.1	833.4	896.0	931.6	952.3
60°	238.1	252.8	288.2	344.6	432.3	522.2	601.5	676.7	726.9	756.0	777.0
62.5°	179.6	196.3	221.4	269.4	336.2	409.4	476.2	532.6	574.3	593.1	607.8
65°	123.2	135.8	154.6	192.1	248.5	300.7	353.0	394.7	421.9	442.8	451.1
67.5°	91.9	100.2	110.8	139.9	179.6	221.4	256.8	286.1	315.4	323.7	338.3
70°	68.9	75.2	85.6	106.5	129.5	158.7	188.0	204.7	225.5	240.2	244.4
72.5°	43.8	45.8	56.4	68.9	87.7	106.5	125.3	139.9	152.5	160.9	165.0
75°	25.1	37.6	37.6	50.1	62.7	71.0	83.5	93.9	100.2	106.5	106.5
77.5°	16.7	23.0	25.1	31.3	37.6	48.1	58.4	64.7	71.0	73.1	73.1
80°	14.6	16.7	16.7	23.0	27.1	35.5	41.8	43.8	48.1	50.1	54.4
82.5°	6.3	8.3	10.4	16.7	18.8	18.8	25.1	27.1	31.3	33.4	33.4
85°	2.0	4.3	4.3	6.3	10.4	12.6	14.6	16.7	18.8	18.8	20.9
87.5°	2.0	2.0	0.0	2.0	4.3	4.3	8.3	8.3	8.3	12.6	12.6
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: P248860

CATALOG NUMBER: LD8B90D010 ER8B90930 8LBSW0GPH

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2	4277.2
2.5°	4239.6	4241.6	4233.3	4231.3	4227.1	4229.1	4233.3
5°	4162.4	4164.4	4156.1	4147.7	4147.7	4145.6	4147.7
7.5°	4089.2	4091.3	4078.8	4074.6	4066.2	4068.3	4068.3
10°	4016.1	4016.1	3997.4	3995.2	3989.0	3986.8	3986.8
12.5°	3945.1	3938.9	3924.2	3915.9	3920.1	3907.6	3907.6
15°	3882.5	3872.0	3853.2	3846.9	3836.5	3832.4	3832.4
17.5°	3817.7	3809.4	3792.7	3780.1	3767.6	3765.6	3767.6
20°	3755.0	3746.7	3725.9	3717.5	3707.0	3707.0	3702.9
22.5°	3692.3	3684.1	3665.3	3659.1	3644.4	3644.4	3646.5
25°	3627.7	3621.4	3600.4	3596.4	3594.3	3585.9	3590.1
27.5°	3540.0	3535.7	3519.0	3512.8	3504.5	3502.5	3506.5
30°	3379.1	3372.9	3360.4	3354.1	3339.5	3341.6	3345.7
32.5°	3178.7	3170.3	3153.6	3147.3	3134.8	3130.6	3132.6
35°	2928.1	2921.8	2907.2	2907.2	2894.6	2890.4	2894.6
37.5°	2673.2	2679.5	2673.2	2679.5	2673.2	2671.1	2673.2
40°	2433.1	2456.0	2460.1	2483.2	2474.8	2487.4	2485.3
42.5°	2203.3	2240.9	2255.6	2274.3	2270.2	2278.5	2284.8
45°	1971.5	2002.9	2017.5	2030.0	2032.0	2036.3	2038.3
47.5°	1752.2	1777.2	1779.4	1793.9	1791.9	1791.9	1798.2
50°	1547.5	1564.2	1568.4	1578.9	1570.5	1566.4	1568.4
52.5°	1357.5	1374.2	1370.0	1374.2	1363.8	1359.5	1361.7
55°	1163.3	1171.6	1171.6	1171.6	1159.1	1159.1	1159.1
57.5°	964.8	967.0	962.8	964.8	962.8	950.3	948.1
60°	783.2	783.2	781.1	783.2	777.0	770.7	770.7
62.5°	611.8	616.1	624.4	616.1	611.8	616.1	609.8
65°	457.4	465.8	463.6	467.8	465.8	465.8	461.5
67.5°	344.6	346.7	348.7	350.9	350.9	350.9	350.9
70°	252.8	259.0	256.8	256.8	256.8	256.8	269.4
72.5°	169.2	177.6	175.4	179.6	179.6	183.8	179.6
75°	114.9	123.2	119.1	125.3	123.2	119.1	129.5
77.5°	77.2	81.5	83.5	85.6	83.5	81.5	83.5
80°	54.4	58.4	56.4	58.4	58.4	58.4	60.6
82.5°	33.4	39.7	37.6	39.7	37.6	39.7	39.7
85°	23.0	25.1	20.9	25.1	23.0	23.0	27.1
87.5°	14.6	12.6	12.6	14.6	12.6	14.6	12.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)