

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: P248851

Luminaire Tested: **LD8B90D010 ER8B90927 8LBSW0GPH**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P248851
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 ER8B90927 8LBSW0GPH
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF
RECESSED DOWNLIGHT
97 CRI 2700 CCT WITH GRAPHITE TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6834.4 lumens
Efficiency: N/A
Efficacy: 79.4 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

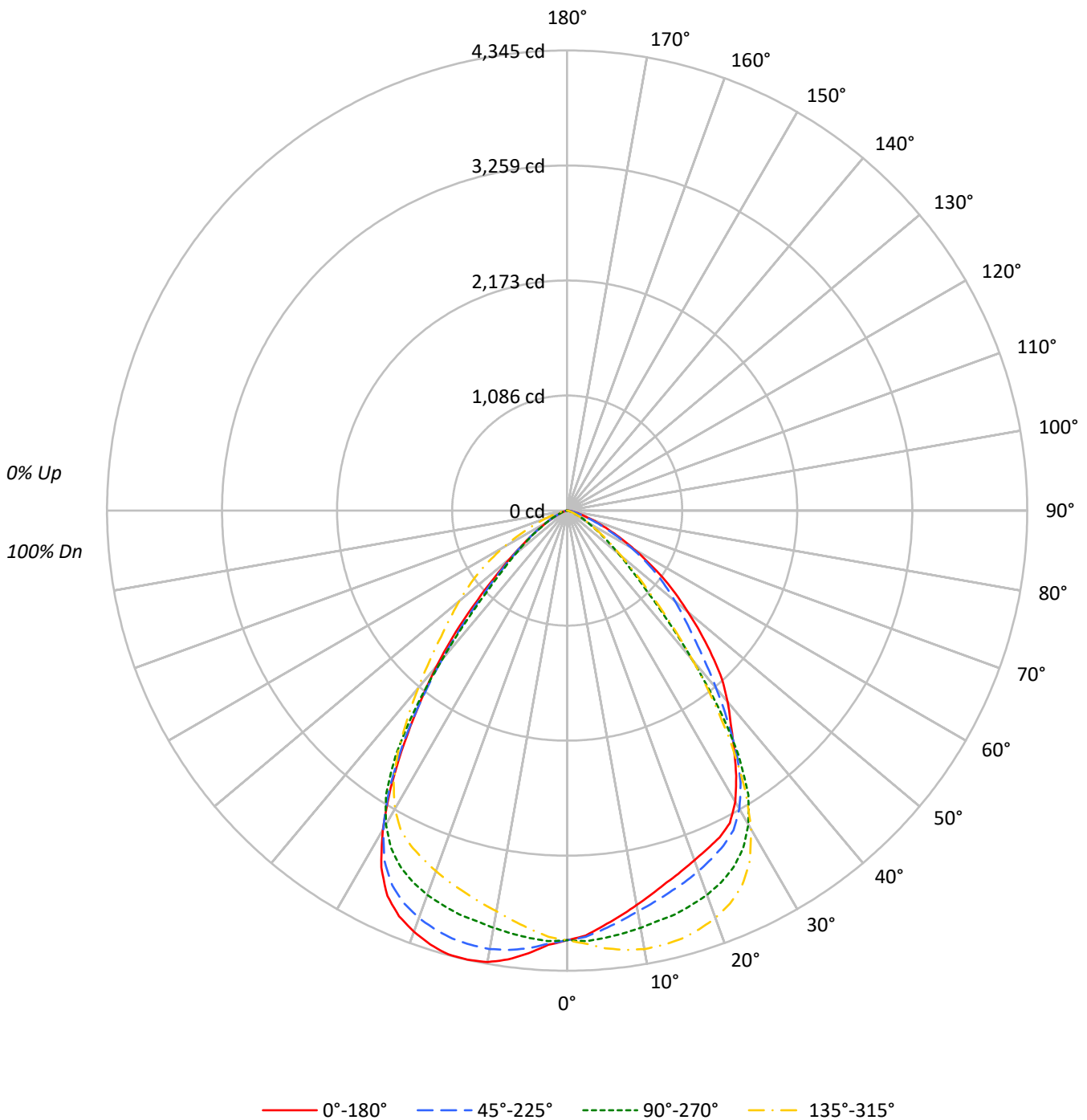
Input Watts (W): 86.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P248851

CATALOG NUMBER: LD8B90D010 ER8B90927 8LBSW0GPH

Luminous Intensity Polar Plot





TEST NUMBER: P248851

CATALOG NUMBER: LD8B90D010 ER8B90927 8LBSW0GPH

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°				



TEST NUMBER: P248851

CATALOG NUMBER: LD8B90D010 ER8B90927 8LBSW0GPH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	386.2	5.7
10°-20°	1118.3	16.4
20°-30°	1693.4	24.8
30°-40°	1697.2	24.8
40°-50°	1065.7	15.6
50°-60°	567.9	8.3
60°-70°	233.5	3.4
70°-80°	61.7	0.9
80°-90°	10.4	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°	3197.9	46.8
0°-40°	4895.0	71.6
0°-60°	6528.7	95.5
0°-90°	6834.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6834.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4057	4057	4057	4057	4057	
5°	3935	4051	4196	4051	3935	371
15°	3635	3946	4339	3946	3635	1028
25°	3406	3717	4016	3717	3406	1562
35°	2746	2823	2678	2823	2746	1720
45°	1934	1034	1197	1034	1934	1487
55°	1100	382	404	382	1100	980
65°	438	117	107	117	438	454
75°	123	24	20	24	123	139
85°	26	0	2	0	26	28
90°	0	0	0	0	0	



TEST NUMBER: P248851

CATALOG NUMBER: LD8B90D010 ER8B90927 8LBSW0GPH

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3
2.5°	4015.8	4011.8	4009.8	4013.8	4015.8	4023.7	4021.8	4025.6	4025.6	4027.7	4031.6
5°	3934.6	3932.6	3934.6	3934.6	3942.4	3950.3	3948.4	3954.4	3958.3	3968.2	3972.2
7.5°	3859.3	3859.3	3857.3	3865.2	3869.1	3881.0	3879.0	3889.0	3894.9	3904.8	3918.6
10°	3782.0	3782.0	3783.9	3789.9	3791.9	3809.7	3809.7	3823.5	3831.5	3841.4	3859.3
12.5°	3706.8	3706.8	3718.6	3714.6	3722.5	3736.4	3742.3	3756.3	3768.1	3787.9	3805.8
15°	3635.3	3635.3	3639.4	3649.3	3655.1	3673.0	3682.9	3698.8	3712.6	3732.5	3758.3
17.5°	3573.9	3572.0	3573.9	3585.8	3597.8	3613.6	3621.5	3641.3	3655.1	3680.9	3704.7
20°	3512.6	3516.5	3516.5	3526.4	3534.3	3554.1	3562.1	3583.9	3599.8	3623.4	3651.3
22.5°	3459.0	3457.1	3457.1	3471.0	3476.9	3494.7	3502.6	3522.4	3540.3	3560.1	3585.8
25°	3405.6	3401.6	3409.5	3411.6	3415.4	3435.3	3441.2	3455.1	3472.9	3490.8	3516.5
27.5°	3326.3	3322.4	3324.4	3332.2	3338.2	3354.1	3358.0	3371.8	3385.8	3401.6	3423.4
30°	3173.7	3169.8	3167.9	3181.7	3187.7	3199.5	3205.5	3229.3	3233.1	3251.0	3266.9
32.5°	2971.7	2969.7	2973.7	2985.5	2991.5	3007.4	3015.3	3029.2	3039.0	3049.0	3064.8
35°	2745.9	2741.8	2745.9	2757.8	2757.8	2771.7	2777.6	2783.5	2781.5	2783.5	2779.5
37.5°	2535.9	2533.8	2535.9	2541.7	2535.9	2541.7	2535.9	2523.9	2502.2	2478.4	2454.6
40°	2357.5	2359.5	2347.6	2355.6	2333.7	2329.9	2308.0	2278.2	2234.7	2187.2	2119.8
42.5°	2167.4	2161.5	2153.5	2157.4	2139.6	2125.7	2090.0	2052.5	1997.0	1917.8	1836.4
45°	1933.6	1931.6	1927.7	1925.7	1913.7	1899.9	1870.2	1826.7	1765.2	1684.0	1586.8
47.5°	1705.7	1699.8	1699.8	1701.8	1688.0	1685.9	1662.2	1624.5	1571.1	1491.8	1390.7
50°	1487.8	1485.8	1489.8	1497.7	1487.8	1483.9	1468.0	1442.2	1394.8	1327.4	1232.2
52.5°	1291.7	1289.7	1293.8	1303.5	1299.6	1303.5	1287.8	1268.0	1236.3	1170.8	1087.6
55°	1099.6	1099.6	1099.6	1111.4	1111.4	1111.4	1103.5	1091.6	1061.9	1014.3	937.1
57.5°	899.4	901.4	913.3	915.3	913.3	917.3	915.3	903.4	883.6	849.9	790.5
60°	731.0	731.0	737.0	742.9	740.9	742.9	742.9	737.0	717.2	689.5	641.9
62.5°	578.5	584.4	580.4	584.4	592.3	584.4	580.4	576.6	562.6	544.8	505.1
65°	437.8	441.8	441.8	443.8	439.8	441.8	433.9	428.0	420.1	400.3	374.4
67.5°	332.9	332.9	332.9	332.9	330.9	328.8	326.9	321.0	307.1	299.1	271.3
70°	255.6	243.7	243.7	243.7	243.7	245.7	239.7	231.9	227.8	214.0	194.2
72.5°	170.3	174.4	170.3	170.3	166.4	168.4	160.4	156.5	152.5	144.7	132.8
75°	122.8	113.0	116.9	118.9	113.0	116.9	108.9	101.0	101.0	95.1	89.1
77.5°	79.3	77.3	79.3	81.2	79.3	77.3	73.4	69.3	69.3	67.4	61.4
80°	57.5	55.5	55.5	55.5	53.4	55.5	51.5	51.5	47.6	45.6	41.6
82.5°	37.7	37.7	35.7	37.7	35.7	37.7	31.7	31.7	31.7	29.7	25.8
85°	25.8	21.8	21.8	23.8	19.8	23.8	21.8	19.8	17.9	17.9	15.9
87.5°	11.9	13.8	11.9	13.8	11.9	11.9	13.8	11.9	11.9	7.9	7.9
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: P248851

CATALOG NUMBER: LD8B90D010 ER8B90927 8LBSW0GPH

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3
2.5°	4037.5	4039.5	4039.5	4047.5	4051.4	4053.4	4053.4	4069.2	4063.3	4067.3	4071.3
5°	3980.1	3992.0	3996.0	3996.0	4017.7	4025.6	4033.6	4051.4	4053.4	4065.3	4079.1
7.5°	3924.6	3938.5	3946.5	3964.3	3978.1	3992.0	4015.8	4027.7	4039.5	4055.4	4073.2
10°	3871.1	3887.0	3902.8	3916.7	3938.5	3956.3	3972.2	3999.8	4013.8	4035.6	4059.3
12.5°	3819.6	3841.4	3855.3	3879.0	3902.8	3918.6	3942.4	3968.2	3990.0	4011.8	4039.5
15°	3774.0	3799.8	3815.7	3841.4	3867.2	3889.0	3914.8	3946.5	3962.2	3988.0	4013.8
17.5°	3724.5	3752.3	3772.1	3795.9	3827.6	3851.3	3873.2	3904.8	3924.6	3952.4	3982.0
20°	3673.0	3700.8	3724.5	3748.3	3780.0	3803.7	3829.5	3861.2	3883.0	3910.7	3934.6
22.5°	3611.6	3637.4	3663.1	3690.8	3722.5	3742.3	3772.1	3799.8	3823.5	3849.3	3873.2
25°	3532.4	3564.1	3583.9	3609.6	3635.3	3657.2	3688.9	3716.6	3736.4	3760.2	3782.0
27.5°	3439.2	3463.1	3478.8	3500.7	3526.4	3546.2	3570.0	3597.8	3617.6	3639.4	3655.1
30°	3280.7	3302.6	3316.4	3332.2	3358.0	3375.9	3395.7	3421.4	3435.3	3451.2	3465.0
32.5°	3072.7	3090.6	3098.5	3110.4	3128.2	3146.0	3161.9	3183.6	3189.6	3199.5	3199.5
35°	2771.7	2775.6	2773.6	2777.6	2785.5	2795.4	2809.2	2823.1	2831.0	2831.0	2825.1
37.5°	2419.0	2395.2	2369.5	2349.7	2343.7	2339.7	2347.6	2353.5	2361.5	2365.4	2355.6
40°	2052.5	1999.0	1941.5	1890.0	1854.3	1838.5	1832.5	1836.4	1836.4	1850.3	1850.3
42.5°	1737.4	1654.2	1569.0	1491.8	1440.2	1400.7	1382.9	1382.9	1384.8	1394.8	1400.7
45°	1476.0	1370.9	1271.8	1186.8	1115.3	1063.8	1040.1	1034.1	1032.2	1036.1	1050.0
47.5°	1275.9	1167.0	1063.8	958.8	883.6	832.0	810.3	802.4	794.4	802.4	804.4
50°	1119.4	1006.4	897.5	792.4	713.1	667.6	639.9	628.0	626.1	626.1	630.0
52.5°	976.6	871.8	762.8	655.8	572.5	529.0	503.2	497.2	489.4	497.2	497.2
55°	842.0	737.0	630.0	529.0	459.6	414.1	390.3	382.4	378.3	384.3	384.3
57.5°	695.4	606.2	507.3	416.0	346.7	315.0	297.1	287.3	285.3	289.2	285.3
60°	570.6	495.3	410.1	326.9	273.4	239.7	225.9	221.8	217.9	221.8	221.8
62.5°	451.7	388.3	318.9	255.6	209.9	186.3	170.3	170.3	168.4	168.4	170.3
65°	334.8	285.3	235.8	182.2	146.6	128.8	116.9	116.9	114.9	116.9	114.9
67.5°	243.7	209.9	170.3	132.8	105.1	95.1	87.2	81.2	85.2	81.2	79.3
70°	178.3	150.5	122.8	101.0	81.2	71.3	65.4	63.3	59.4	59.4	59.4
72.5°	118.9	101.0	83.1	65.4	53.4	43.5	41.6	37.7	33.6	35.7	39.6
75°	79.3	67.4	59.4	47.6	35.7	35.7	23.8	23.8	19.8	23.8	17.9
77.5°	55.5	45.6	35.7	29.7	23.8	21.8	15.9	15.9	13.8	13.8	13.8
80°	39.6	33.6	25.8	21.8	15.9	15.9	13.8	11.9	9.9	9.9	11.9
82.5°	23.8	17.9	17.9	15.9	9.9	7.9	6.0	7.9	4.0	4.0	4.0
85°	13.8	11.9	9.9	6.0	4.0	4.0	1.9	0.0	1.9	1.9	0.0
87.5°	7.9	4.0	4.0	1.9	0.0	1.9	1.9	0.0	0.0	0.0	4.0
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: P248851

CATALOG NUMBER: LD8B90D010 ER8B90927 8LBSW0GPH

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3
2.5°	4081.2	4079.1	4083.1	4083.1	4095.0	4093.0	4098.9	4098.9	4095.0	4097.0	4104.9
5°	4095.0	4101.0	4112.8	4122.8	4140.6	4148.6	4158.3	4168.3	4170.3	4176.2	4182.2
7.5°	4095.0	4114.8	4128.8	4146.5	4170.3	4184.1	4205.9	4223.8	4231.7	4241.6	4253.5
10°	4087.0	4106.8	4132.6	4152.5	4182.2	4204.0	4225.7	4253.5	4265.3	4281.2	4297.0
12.5°	4071.3	4093.0	4120.8	4146.5	4180.2	4200.0	4227.8	4253.5	4271.3	4293.1	4311.0
15°	4047.5	4073.2	4098.9	4124.7	4160.4	4184.1	4210.0	4239.6	4257.4	4281.2	4297.0
17.5°	4009.8	4037.5	4061.4	4085.1	4118.7	4146.5	4170.3	4198.0	4215.8	4235.7	4257.4
20°	3964.3	3990.0	4015.8	4035.6	4069.2	4093.0	4118.7	4144.5	4158.3	4162.4	4196.0
22.5°	3906.8	3924.6	3944.4	3976.1	3996.0	4017.7	4041.6	4065.3	4079.1	4101.0	4112.8
25°	3811.6	3829.5	3851.3	3865.2	3889.0	3906.8	3930.5	3956.3	3964.3	3980.1	3992.0
27.5°	3679.0	3688.9	3698.8	3710.6	3724.5	3734.4	3748.3	3760.2	3768.1	3776.1	3783.9
30°	3468.9	3468.9	3468.9	3461.1	3466.9	3472.9	3474.9	3472.9	3472.9	3471.0	3471.0
32.5°	3191.6	3175.8	3157.9	3142.1	3136.2	3128.2	3124.2	3118.3	3108.4	3102.4	3104.4
35°	2817.1	2781.5	2759.7	2739.9	2724.1	2712.2	2706.2	2700.2	2698.3	2690.4	2682.5
37.5°	2349.7	2323.9	2308.0	2296.1	2282.3	2270.4	2272.4	2274.4	2280.3	2276.3	2278.2
40°	1854.3	1848.4	1854.3	1840.5	1836.4	1840.5	1850.3	1864.2	1872.2	1880.1	1893.9
42.5°	1410.5	1420.4	1434.4	1434.4	1440.2	1448.2	1460.0	1482.0	1493.8	1507.6	1523.5
45°	1061.9	1073.8	1091.6	1097.6	1101.5	1111.4	1125.3	1143.1	1151.0	1162.9	1176.8
47.5°	818.2	826.1	836.0	846.0	855.8	859.8	873.7	873.7	883.6	891.6	895.5
50°	637.9	645.9	653.7	659.7	663.8	669.6	673.5	679.5	681.5	685.5	687.4
52.5°	499.2	509.2	509.2	513.1	519.1	525.0	523.0	525.0	526.9	526.9	532.9
55°	390.3	390.3	396.2	396.2	400.3	398.1	400.3	400.3	400.3	400.3	402.2
57.5°	291.2	293.3	299.1	295.2	293.3	297.1	293.3	297.1	295.2	299.1	293.3
60°	223.9	223.9	225.9	225.9	227.8	227.8	227.8	225.9	225.9	223.9	223.9
62.5°	168.4	170.3	172.4	170.3	170.3	170.3	168.4	168.4	166.4	164.4	164.4
65°	113.0	111.0	114.9	111.0	113.0	113.0	111.0	113.0	107.0	108.9	107.0
67.5°	81.2	79.3	77.3	79.3	77.3	75.3	75.3	77.3	79.3	73.4	73.4
70°	53.4	55.5	53.4	55.5	57.5	57.5	55.5	53.4	55.5	51.5	53.4
72.5°	33.6	33.6	33.6	33.6	33.6	35.7	35.7	35.7	31.7	31.7	29.7
75°	15.9	21.8	17.9	15.9	21.8	21.8	19.8	19.8	17.9	17.9	17.9
77.5°	15.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	9.9	11.9	9.9
80°	7.9	7.9	7.9	6.0	7.9	7.9	9.9	7.9	7.9	6.0	9.9
82.5°	4.0	4.0	4.0	0.0	1.9	4.0	4.0	1.9	4.0	4.0	1.9
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: P248851

CATALOG NUMBER: LD8B90D010 ER8B90927 8LBSW0GPH

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3
2.5°	4103.0	4101.0	4103.0	4104.9	4103.0	4101.0	4103.0	4104.9	4097.0	4095.0	4098.9
5°	4190.1	4190.1	4194.0	4196.0	4194.0	4190.1	4190.1	4182.2	4176.2	4170.3	4168.3
7.5°	4265.3	4269.4	4273.3	4275.2	4273.3	4269.4	4265.3	4253.5	4241.6	4231.7	4223.8
10°	4311.0	4317.0	4324.8	4328.8	4324.8	4317.0	4311.0	4297.0	4281.2	4265.3	4253.5
12.5°	4330.8	4336.8	4346.6	4344.6	4346.6	4336.8	4330.8	4311.0	4293.1	4271.3	4253.5
15°	4317.0	4324.8	4334.7	4338.7	4334.7	4324.8	4317.0	4297.0	4281.2	4257.4	4239.6
17.5°	4273.3	4285.2	4291.1	4297.0	4291.1	4285.2	4273.3	4257.4	4235.7	4215.8	4198.0
20°	4213.8	4221.8	4229.8	4231.7	4229.8	4221.8	4213.8	4196.0	4162.4	4158.3	4144.5
22.5°	4128.8	4134.7	4152.5	4146.5	4152.5	4134.7	4128.8	4112.8	4101.0	4079.1	4065.3
25°	4005.8	4011.8	4013.8	4015.8	4013.8	4011.8	4005.8	3992.0	3980.1	3964.3	3956.3
27.5°	3793.8	3793.8	3797.8	3799.8	3797.8	3793.8	3793.8	3783.9	3776.1	3768.1	3760.2
30°	3472.9	3472.9	3472.9	3482.9	3472.9	3472.9	3472.9	3471.0	3471.0	3472.9	3472.9
32.5°	3102.4	3098.5	3094.5	3098.5	3094.5	3098.5	3102.4	3104.4	3102.4	3108.4	3118.3
35°	2682.5	2680.4	2686.4	2678.5	2686.4	2680.4	2682.5	2682.5	2690.4	2698.3	2700.2
37.5°	2280.3	2276.3	2284.2	2276.3	2284.2	2276.3	2280.3	2278.2	2276.3	2280.3	2274.4
40°	1898.0	1901.9	1901.9	1917.8	1901.9	1901.9	1898.0	1893.9	1880.1	1872.2	1864.2
42.5°	1531.5	1543.3	1539.3	1551.3	1539.3	1543.3	1531.5	1523.5	1507.6	1493.8	1482.0
45°	1184.7	1192.7	1192.7	1196.6	1192.7	1192.7	1184.7	1176.8	1162.9	1151.0	1143.1
47.5°	909.3	909.3	909.3	911.4	909.3	909.3	909.3	895.5	891.6	883.6	873.7
50°	691.4	693.3	695.4	697.4	695.4	693.3	691.4	687.4	685.5	681.5	679.5
52.5°	530.9	532.9	529.0	532.9	529.0	532.9	530.9	532.9	526.9	526.9	525.0
55°	402.2	400.3	402.2	404.1	402.2	400.3	402.2	402.2	400.3	400.3	400.3
57.5°	295.2	291.2	291.2	291.2	291.2	291.2	295.2	293.3	299.1	295.2	297.1
60°	219.9	221.8	221.8	223.9	221.8	221.8	219.9	223.9	223.9	225.9	225.9
62.5°	162.5	168.4	164.4	168.4	164.4	168.4	162.5	164.4	164.4	166.4	168.4
65°	105.1	105.1	105.1	107.0	105.1	105.1	105.1	107.0	108.9	107.0	113.0
67.5°	71.3	73.4	77.3	75.3	77.3	73.4	71.3	73.4	73.4	79.3	77.3
70°	57.5	51.5	51.5	57.5	51.5	51.5	57.5	53.4	51.5	55.5	53.4
72.5°	33.6	29.7	33.6	33.6	33.6	29.7	33.6	29.7	31.7	31.7	35.7
75°	17.9	15.9	13.8	19.8	13.8	15.9	17.9	17.9	17.9	17.9	19.8
77.5°	11.9	9.9	13.8	13.8	13.8	9.9	11.9	9.9	11.9	9.9	11.9
80°	6.0	7.9	6.0	9.9	6.0	7.9	6.0	9.9	6.0	7.9	7.9
82.5°	1.9	4.0	4.0	4.0	4.0	4.0	1.9	1.9	4.0	4.0	1.9
85°	0.0	4.0	1.9	1.9	1.9	4.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.9	0.0	0.0	1.9	0.0	0.0	1.9	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: P248851

CATALOG NUMBER: LD8B90D010 ER8B90927 8LBSW0GPH

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3
2.5°	4098.9	4093.0	4095.0	4083.1	4083.1	4079.1	4081.2	4071.3	4067.3	4063.3	4069.2
5°	4158.3	4148.6	4140.6	4122.8	4112.8	4101.0	4095.0	4079.1	4065.3	4053.4	4051.4
7.5°	4205.9	4184.1	4170.3	4146.5	4128.8	4114.8	4095.0	4073.2	4055.4	4039.5	4027.7
10°	4225.7	4204.0	4182.2	4152.5	4132.6	4106.8	4087.0	4059.3	4035.6	4013.8	3999.8
12.5°	4227.8	4200.0	4180.2	4146.5	4120.8	4093.0	4071.3	4039.5	4011.8	3990.0	3968.2
15°	4210.0	4184.1	4160.4	4124.7	4098.9	4073.2	4047.5	4013.8	3988.0	3962.2	3946.5
17.5°	4170.3	4146.5	4118.7	4085.1	4061.4	4037.5	4009.8	3982.0	3952.4	3924.6	3904.8
20°	4118.7	4093.0	4069.2	4035.6	4015.8	3990.0	3964.3	3934.6	3910.7	3883.0	3861.2
22.5°	4041.6	4017.7	3996.0	3976.1	3944.4	3924.6	3906.8	3873.2	3849.3	3823.5	3799.8
25°	3930.5	3906.8	3889.0	3865.2	3851.3	3829.5	3811.6	3782.0	3760.2	3736.4	3716.6
27.5°	3748.3	3734.4	3724.5	3710.6	3698.8	3688.9	3679.0	3655.1	3639.4	3617.6	3597.8
30°	3474.9	3472.9	3466.9	3461.1	3468.9	3468.9	3468.9	3465.0	3451.2	3435.3	3421.4
32.5°	3124.2	3128.2	3136.2	3142.1	3157.9	3175.8	3191.6	3199.5	3199.5	3189.6	3183.6
35°	2706.2	2712.2	2724.1	2739.9	2759.7	2781.5	2817.1	2825.1	2831.0	2831.0	2823.1
37.5°	2272.4	2270.4	2282.3	2296.1	2308.0	2323.9	2349.7	2355.6	2365.4	2361.5	2353.5
40°	1850.3	1840.5	1836.4	1840.5	1854.3	1848.4	1854.3	1850.3	1850.3	1836.4	1836.4
42.5°	1460.0	1448.2	1440.2	1434.4	1434.4	1420.4	1410.5	1400.7	1394.8	1384.8	1382.9
45°	1125.3	1111.4	1101.5	1097.6	1091.6	1073.8	1061.9	1050.0	1036.1	1032.2	1034.1
47.5°	873.7	859.8	855.8	846.0	836.0	826.1	818.2	804.4	802.4	794.4	802.4
50°	673.5	669.6	663.8	659.7	653.7	645.9	637.9	630.0	626.1	626.1	628.0
52.5°	523.0	525.0	519.1	513.1	509.2	509.2	499.2	497.2	497.2	489.4	497.2
55°	400.3	398.1	400.3	396.2	396.2	390.3	390.3	384.3	384.3	378.3	382.4
57.5°	293.3	297.1	293.3	295.2	299.1	293.3	291.2	285.3	289.2	285.3	287.3
60°	227.8	227.8	227.8	225.9	225.9	223.9	223.9	221.8	221.8	217.9	221.8
62.5°	168.4	170.3	170.3	170.3	172.4	170.3	168.4	170.3	168.4	168.4	170.3
65°	111.0	113.0	113.0	111.0	114.9	111.0	113.0	114.9	116.9	114.9	116.9
67.5°	75.3	75.3	77.3	79.3	77.3	79.3	81.2	79.3	81.2	85.2	81.2
70°	55.5	57.5	57.5	55.5	53.4	55.5	53.4	59.4	59.4	59.4	63.3
72.5°	35.7	35.7	33.6	33.6	33.6	33.6	33.6	39.6	35.7	33.6	37.7
75°	19.8	21.8	21.8	15.9	17.9	21.8	15.9	17.9	23.8	19.8	23.8
77.5°	11.9	11.9	11.9	11.9	11.9	11.9	15.9	13.8	13.8	13.8	15.9
80°	9.9	7.9	7.9	6.0	7.9	7.9	7.9	11.9	9.9	9.9	11.9
82.5°	4.0	4.0	1.9	0.0	4.0	4.0	4.0	4.0	4.0	4.0	7.9
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	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: P248851

CATALOG NUMBER: LD8B90D010 ER8B90927 8LBSW0GPH

CANDELA DISTRIBUTION (continued):

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3
2.5°	4053.4	4053.4	4051.4	4047.5	4039.5	4039.5	4037.5	4031.6	4027.7	4025.6	4025.6
5°	4033.6	4025.6	4017.7	3996.0	3996.0	3992.0	3980.1	3972.2	3968.2	3958.3	3954.4
7.5°	4015.8	3992.0	3978.1	3964.3	3946.5	3938.5	3924.6	3918.6	3904.8	3894.9	3889.0
10°	3972.2	3956.3	3938.5	3916.7	3902.8	3887.0	3871.1	3859.3	3841.4	3831.5	3823.5
12.5°	3942.4	3918.6	3902.8	3879.0	3855.3	3841.4	3819.6	3805.8	3787.9	3768.1	3756.3
15°	3914.8	3889.0	3867.2	3841.4	3815.7	3799.8	3774.0	3758.3	3732.5	3712.6	3698.8
17.5°	3873.2	3851.3	3827.6	3795.9	3772.1	3752.3	3724.5	3704.7	3680.9	3655.1	3641.3
20°	3829.5	3803.7	3780.0	3748.3	3724.5	3700.8	3673.0	3651.3	3623.4	3599.8	3583.9
22.5°	3772.1	3742.3	3722.5	3690.8	3663.1	3637.4	3611.6	3585.8	3560.1	3540.3	3522.4
25°	3688.9	3657.2	3635.3	3609.6	3583.9	3564.1	3532.4	3516.5	3490.8	3472.9	3455.1
27.5°	3570.0	3546.2	3526.4	3500.7	3478.8	3463.1	3439.2	3423.4	3401.6	3385.8	3371.8
30°	3395.7	3375.9	3358.0	3332.2	3316.4	3302.6	3280.7	3266.9	3251.0	3233.1	3229.3
32.5°	3161.9	3146.0	3128.2	3110.4	3098.5	3090.6	3072.7	3064.8	3049.0	3039.0	3029.2
35°	2809.2	2795.4	2785.5	2777.6	2773.6	2775.6	2771.7	2779.5	2783.5	2781.5	2783.5
37.5°	2347.6	2339.7	2343.7	2349.7	2369.5	2395.2	2419.0	2454.6	2478.4	2502.2	2523.9
40°	1832.5	1838.5	1854.3	1890.0	1941.5	1999.0	2052.5	2119.8	2187.2	2234.7	2278.2
42.5°	1382.9	1400.7	1440.2	1491.8	1569.0	1654.2	1737.4	1836.4	1917.8	1997.0	2052.5
45°	1040.1	1063.8	1115.3	1186.8	1271.8	1370.9	1476.0	1586.8	1684.0	1765.2	1826.7
47.5°	810.3	832.0	883.6	958.8	1063.8	1167.0	1275.9	1390.7	1491.8	1571.1	1624.5
50°	639.9	667.6	713.1	792.4	897.5	1006.4	1119.4	1232.2	1327.4	1394.8	1442.2
52.5°	503.2	529.0	572.5	655.8	762.8	871.8	976.6	1087.6	1170.8	1236.3	1268.0
55°	390.3	414.1	459.6	529.0	630.0	737.0	842.0	937.1	1014.3	1061.9	1091.6
57.5°	297.1	315.0	346.7	416.0	507.3	606.2	695.4	790.5	849.9	883.6	903.4
60°	225.9	239.7	273.4	326.9	410.1	495.3	570.6	641.9	689.5	717.2	737.0
62.5°	170.3	186.3	209.9	255.6	318.9	388.3	451.7	505.1	544.8	562.6	576.6
65°	116.9	128.8	146.6	182.2	235.8	285.3	334.8	374.4	400.3	420.1	428.0
67.5°	87.2	95.1	105.1	132.8	170.3	209.9	243.7	271.3	299.1	307.1	321.0
70°	65.4	71.3	81.2	101.0	122.8	150.5	178.3	194.2	214.0	227.8	231.9
72.5°	41.6	43.5	53.4	65.4	83.1	101.0	118.9	132.8	144.7	152.5	156.5
75°	23.8	35.7	35.7	47.6	59.4	67.4	79.3	89.1	95.1	101.0	101.0
77.5°	15.9	21.8	23.8	29.7	35.7	45.6	55.5	61.4	67.4	69.3	69.3
80°	13.8	15.9	15.9	21.8	25.8	33.6	39.6	41.6	45.6	47.6	51.5
82.5°	6.0	7.9	9.9	15.9	17.9	17.9	23.8	25.8	29.7	31.7	31.7
85°	1.9	4.0	4.0	6.0	9.9	11.9	13.8	15.9	17.9	17.9	19.8
87.5°	1.9	1.9	0.0	1.9	4.0	4.0	7.9	7.9	7.9	11.9	11.9
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: P248851

CATALOG NUMBER: LD8B90D010 ER8B90927 8LBSW0GPH

CANDELA DISTRIBUTION (continued):

	330°	335°	340°	345°	350°	355°	360°
0°	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3	4057.3
2.5°	4021.8	4023.7	4015.8	4013.8	4009.8	4011.8	4015.8
5°	3948.4	3950.3	3942.4	3934.6	3934.6	3932.6	3934.6
7.5°	3879.0	3881.0	3869.1	3865.2	3857.3	3859.3	3859.3
10°	3809.7	3809.7	3791.9	3789.9	3783.9	3782.0	3782.0
12.5°	3742.3	3736.4	3722.5	3714.6	3718.6	3706.8	3706.8
15°	3682.9	3673.0	3655.1	3649.3	3639.4	3635.3	3635.3
17.5°	3621.5	3613.6	3597.8	3585.8	3573.9	3572.0	3573.9
20°	3562.1	3554.1	3534.3	3526.4	3516.5	3516.5	3512.6
22.5°	3502.6	3494.7	3476.9	3471.0	3457.1	3457.1	3459.0
25°	3441.2	3435.3	3415.4	3411.6	3409.5	3401.6	3405.6
27.5°	3358.0	3354.1	3338.2	3332.2	3324.4	3322.4	3326.3
30°	3205.5	3199.5	3187.7	3181.7	3167.9	3169.8	3173.7
32.5°	3015.3	3007.4	2991.5	2985.5	2973.7	2969.7	2971.7
35°	2777.6	2771.7	2757.8	2757.8	2745.9	2741.8	2745.9
37.5°	2535.9	2541.7	2535.9	2541.7	2535.9	2533.8	2535.9
40°	2308.0	2329.9	2333.7	2355.6	2347.6	2359.5	2357.5
42.5°	2090.0	2125.7	2139.6	2157.4	2153.5	2161.5	2167.4
45°	1870.2	1899.9	1913.7	1925.7	1927.7	1931.6	1933.6
47.5°	1662.2	1685.9	1688.0	1701.8	1699.8	1699.8	1705.7
50°	1468.0	1483.9	1487.8	1497.7	1489.8	1485.8	1487.8
52.5°	1287.8	1303.5	1299.6	1303.5	1293.8	1289.7	1291.7
55°	1103.5	1111.4	1111.4	1111.4	1099.6	1099.6	1099.6
57.5°	915.3	917.3	913.3	915.3	913.3	901.4	899.4
60°	742.9	742.9	740.9	742.9	737.0	731.0	731.0
62.5°	580.4	584.4	592.3	584.4	580.4	584.4	578.5
65°	433.9	441.8	439.8	443.8	441.8	441.8	437.8
67.5°	326.9	328.8	330.9	332.9	332.9	332.9	332.9
70°	239.7	245.7	243.7	243.7	243.7	243.7	255.6
72.5°	160.4	168.4	166.4	170.3	170.3	174.4	170.3
75°	108.9	116.9	113.0	118.9	116.9	113.0	122.8
77.5°	73.4	77.3	79.3	81.2	79.3	77.3	79.3
80°	51.5	55.5	53.4	55.5	55.5	55.5	57.5
82.5°	31.7	37.7	35.7	37.7	35.7	37.7	37.7
85°	21.8	23.8	19.8	23.8	21.8	21.8	25.8
87.5°	13.8	11.9	11.9	13.8	11.9	13.8	11.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)