

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: P248986

Luminaire Tested: **LD8B90D010 ER8B90830 8LBSW0MW**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P248986  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13958)  
Test Lab: INNOVATION CENTER-P1  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LD8B90D010 ER8B90830 8LBSW0MW  
Description: PORTFOLIO 8 INCH SINGLE WALL WASH DISTRIBUTION 60 DEGREE CUTOFF  
RECESSED DOWNLIGHT  
80 CRI 3000 CCT WITH MATTE WHITE TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8971.0 lumens  
Efficiency: N/A  
Efficacy: 104.2 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

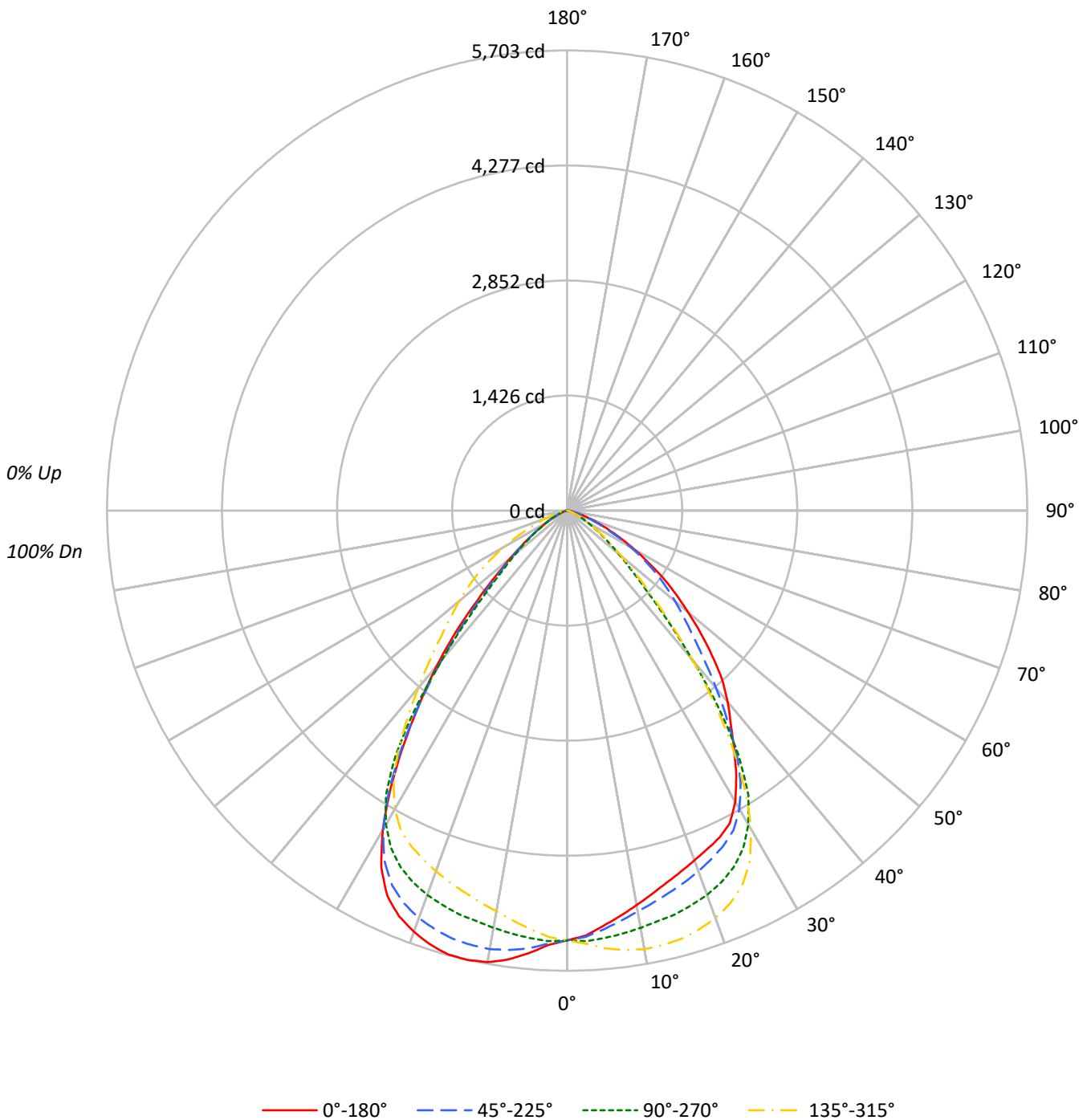
Input Watts (W): 86.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	164228	164228	164228	164228
5°	159866	164614	170492	164614
10°	155442	164397	177915	164397
15°	152339	165373	181811	165373
20°	151302	166321	182276	166321
25°	152095	165987	179348	165987
30°	148334	159910	162783	159910
35°	135681	139498	132353	139498
40°	124570	97036	101331	97036
45°	110684	59199	68497	59199
50°	93686	39544	43914	39544
55°	77594	26983	28520	26983
60°	59181	17965	18119	17965
65°	41933	11193	10244	11193
70°	30248	7501	6807	7501
75°	19206	3729	3098	3729
80°	13407	2770	2309	2770
85°	11959	0	920	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	506.9	5.7
10°-20°	1467.9	16.4
20°-30°	2222.8	24.8
30°-40°	2227.8	24.8
40°-50°	1398.9	15.6
50°-60°	745.5	8.3
60°-70°	306.6	3.4
70°-80°	81.0	0.9
80°-90°	13.7	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°	4197.6	46.8
0°-40°	6425.4	71.6
0°-60°	8569.8	95.5
0°-90°	8971.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8971.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	5326	5326	5326	5326	5326	
5°	5165	5318	5508	5318	5165	487
15°	4772	5180	5695	5180	4772	1350
25°	4470	4878	5271	4878	4470	2050
35°	3604	3706	3516	3706	3604	2258
45°	2538	1358	1571	1358	2538	1952
55°	1443	502	530	502	1443	1287
65°	575	153	140	153	575	596
75°	161	31	26	31	161	183
85°	34	0	3	0	34	37
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°	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8
2.5°	5271.2	5266.0	5263.4	5268.6	5271.2	5281.6	5279.0	5284.2	5284.2	5286.8	5292.0
5°	5164.6	5161.9	5164.6	5164.6	5175.0	5185.4	5182.8	5190.6	5195.7	5208.8	5213.9
7.5°	5065.8	5065.8	5063.1	5073.5	5078.8	5094.4	5091.7	5104.8	5112.6	5125.5	5143.7
10°	4964.3	4964.3	4966.9	4974.7	4977.4	5000.7	5000.7	5018.9	5029.3	5042.4	5065.8
12.5°	4865.5	4865.5	4881.2	4875.9	4886.3	4904.5	4912.3	4930.5	4946.1	4972.1	4995.6
15°	4771.9	4771.9	4777.1	4790.1	4797.9	4821.3	4834.3	4855.2	4873.3	4899.4	4933.2
17.5°	4691.3	4688.7	4691.3	4706.9	4722.5	4743.3	4753.7	4779.7	4797.9	4831.7	4863.0
20°	4610.7	4615.9	4615.9	4628.9	4639.3	4665.3	4675.6	4704.3	4725.1	4756.2	4792.7
22.5°	4540.5	4537.9	4537.9	4556.1	4563.9	4587.2	4597.6	4623.6	4647.1	4673.1	4706.9
25°	4470.2	4465.0	4475.5	4478.1	4483.2	4509.2	4517.0	4535.2	4558.7	4582.1	4615.9
27.5°	4366.2	4361.1	4363.6	4374.0	4381.8	4402.6	4407.8	4426.0	4444.2	4465.0	4493.7
30°	4165.9	4160.8	4158.2	4176.4	4184.2	4199.8	4207.6	4238.8	4244.0	4267.4	4288.2
32.5°	3900.7	3898.1	3903.4	3918.9	3926.7	3947.6	3958.0	3976.2	3989.1	4002.2	4022.9
35°	3604.3	3599.1	3604.3	3619.9	3619.9	3638.1	3645.9	3653.6	3651.1	3653.6	3648.5
37.5°	3328.7	3326.0	3328.7	3336.4	3328.7	3336.4	3328.7	3313.1	3284.5	3253.2	3222.0
40°	3094.6	3097.2	3081.6	3092.0	3063.3	3058.2	3029.6	2990.5	2933.4	2871.0	2782.6
42.5°	2845.0	2837.2	2826.8	2831.9	2808.6	2790.3	2743.5	2694.2	2621.3	2517.3	2410.6
45°	2538.1	2535.5	2530.3	2527.7	2512.1	2493.9	2454.8	2397.7	2317.1	2210.4	2083.0
47.5°	2239.0	2231.2	2231.2	2233.8	2215.6	2213.0	2181.8	2132.4	2062.2	1958.2	1825.5
50°	1952.9	1950.3	1955.6	1966.0	1952.9	1947.8	1927.0	1893.2	1830.8	1742.4	1617.5
52.5°	1695.5	1692.9	1698.2	1711.1	1705.9	1711.1	1690.3	1664.3	1622.7	1536.9	1427.7
55°	1443.3	1443.3	1443.3	1458.8	1458.8	1458.8	1448.4	1432.9	1393.9	1331.4	1230.1
57.5°	1180.6	1183.2	1198.8	1201.4	1198.8	1204.1	1201.4	1185.8	1159.9	1115.7	1037.6
60°	959.6	959.6	967.4	975.2	972.6	975.2	975.2	967.4	941.4	905.0	842.6
62.5°	759.3	767.1	761.9	767.1	777.5	767.1	761.9	756.8	738.6	715.1	663.1
65°	574.7	579.9	579.9	582.5	577.3	579.9	569.6	561.7	551.4	525.3	491.5
67.5°	436.9	436.9	436.9	436.9	434.3	431.7	429.1	421.3	403.1	392.7	356.2
70°	335.5	319.8	319.8	319.8	319.8	322.5	314.7	304.3	299.1	280.9	254.9
72.5°	223.6	228.8	223.6	223.6	218.5	221.0	210.7	205.4	200.3	189.9	174.3
75°	161.2	148.2	153.4	156.1	148.2	153.4	143.0	132.6	132.6	124.8	117.0
77.5°	104.0	101.5	104.0	106.6	104.0	101.5	96.2	91.0	91.0	88.4	80.6
80°	75.5	72.8	72.8	72.8	70.2	72.8	67.6	67.6	62.4	59.8	54.6
82.5°	49.5	49.5	46.8	49.5	46.8	49.5	41.6	41.6	41.6	39.0	33.8
85°	33.8	28.6	28.6	31.3	26.0	31.3	28.6	26.0	23.4	23.4	20.8
87.5°	15.6	18.2	15.6	18.2	15.6	15.6	18.2	15.6	15.6	10.4	10.4
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):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8
2.5°	5299.8	5302.4	5302.4	5312.8	5318.0	5320.6	5320.6	5341.4	5333.6	5338.9	5344.0
5°	5224.4	5240.0	5245.2	5245.2	5273.8	5284.2	5294.5	5318.0	5320.6	5336.2	5354.4
7.5°	5151.5	5169.7	5180.2	5203.6	5221.8	5240.0	5271.2	5286.8	5302.4	5323.2	5346.6
10°	5081.3	5102.2	5123.0	5141.2	5169.7	5193.2	5213.9	5250.3	5268.6	5297.2	5328.4
12.5°	5013.8	5042.4	5060.6	5091.7	5123.0	5143.7	5175.0	5208.8	5237.4	5266.0	5302.4
15°	4953.9	4987.8	5008.5	5042.4	5076.2	5104.8	5138.6	5180.2	5201.0	5234.8	5268.6
17.5°	4888.9	4925.4	4951.4	4982.5	5024.2	5055.3	5084.0	5125.5	5151.5	5187.9	5227.0
20°	4821.3	4857.7	4888.9	4920.1	4961.8	4992.9	5026.7	5068.4	5097.0	5133.3	5164.6
22.5°	4740.7	4774.6	4808.3	4844.7	4886.3	4912.3	4951.4	4987.8	5018.9	5052.7	5084.0
25°	4636.7	4678.3	4704.3	4738.1	4771.9	4800.5	4842.1	4878.5	4904.5	4935.8	4964.3
27.5°	4514.4	4545.7	4566.5	4595.0	4628.9	4654.9	4686.0	4722.5	4748.5	4777.1	4797.9
30°	4306.4	4335.1	4353.2	4374.0	4407.8	4431.3	4457.3	4491.0	4509.2	4530.1	4548.3
32.5°	4033.3	4056.8	4067.1	4082.8	4106.2	4129.5	4150.4	4179.0	4186.8	4199.8	4199.8
35°	3638.1	3643.3	3640.7	3645.9	3656.3	3669.3	3687.5	3705.7	3716.0	3716.0	3708.3
37.5°	3175.2	3144.0	3110.2	3084.2	3076.4	3071.1	3081.6	3089.3	3099.8	3105.0	3092.0
40°	2694.2	2623.9	2548.5	2480.8	2434.1	2413.3	2405.5	2410.6	2410.6	2428.8	2428.8
42.5°	2280.7	2171.4	2059.6	1958.2	1890.5	1838.6	1815.2	1815.2	1817.7	1830.8	1838.6
45°	1937.4	1799.5	1669.5	1557.7	1464.1	1396.4	1365.3	1357.5	1354.9	1360.0	1378.2
47.5°	1674.7	1531.7	1396.4	1258.7	1159.9	1092.2	1063.6	1053.2	1042.8	1053.2	1055.8
50°	1469.3	1321.1	1178.1	1040.2	936.2	876.3	839.9	824.3	821.7	821.7	827.0
52.5°	1282.0	1144.2	1001.2	860.8	751.5	694.4	660.5	652.7	642.3	652.7	652.7
55°	1105.2	967.4	827.0	694.4	603.3	543.5	512.3	501.9	496.7	504.5	504.5
57.5°	912.8	795.7	665.8	546.1	455.1	413.5	390.0	377.1	374.4	379.7	374.4
60°	748.9	650.2	538.3	429.1	358.9	314.7	296.5	291.3	286.0	291.3	291.3
62.5°	592.9	509.7	418.6	335.5	275.6	244.5	223.6	223.6	221.0	221.0	223.6
65°	439.5	374.4	309.4	239.2	192.5	169.0	153.4	153.4	150.8	153.4	150.8
67.5°	319.8	275.6	223.6	174.3	137.9	124.8	114.4	106.6	111.9	106.6	104.0
70°	234.1	197.6	161.2	132.6	106.6	93.7	85.8	83.2	78.0	78.0	78.0
72.5°	156.1	132.6	109.2	85.8	70.2	57.2	54.6	49.5	44.2	46.8	52.0
75°	104.0	88.4	78.0	62.4	46.8	46.8	31.3	31.3	26.0	31.3	23.4
77.5°	72.8	59.8	46.8	39.0	31.3	28.6	20.8	20.8	18.2	18.2	18.2
80°	52.0	44.2	33.8	28.6	20.8	20.8	18.2	15.6	13.0	13.0	15.6
82.5°	31.3	23.4	23.4	20.8	13.0	10.4	7.8	10.4	5.2	5.2	5.2
85°	18.2	15.6	13.0	7.8	5.2	5.2	2.6	0.0	2.6	2.6	0.0
87.5°	10.4	5.2	5.2	2.6	0.0	2.6	2.6	0.0	0.0	0.0	5.2
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°	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8
2.5°	5357.1	5354.4	5359.6	5359.6	5375.3	5372.6	5380.4	5380.4	5375.3	5377.8	5388.2
5°	5375.3	5383.1	5398.6	5411.6	5435.0	5445.5	5458.4	5471.5	5474.0	5481.9	5489.7
7.5°	5375.3	5401.3	5419.5	5442.8	5474.0	5492.2	5520.8	5544.3	5554.6	5567.6	5583.2
10°	5364.8	5390.8	5424.6	5450.6	5489.7	5518.3	5546.8	5583.2	5598.9	5619.6	5640.5
12.5°	5344.0	5372.6	5409.0	5442.8	5487.0	5513.0	5549.4	5583.2	5606.7	5635.2	5658.7
15°	5312.8	5346.6	5380.4	5414.2	5461.0	5492.2	5526.1	5565.0	5588.5	5619.6	5640.5
17.5°	5263.4	5299.8	5331.0	5362.2	5406.4	5442.8	5474.0	5510.4	5533.9	5559.9	5588.5
20°	5203.6	5237.4	5271.2	5297.2	5341.4	5372.6	5406.4	5440.2	5458.4	5463.7	5507.9
22.5°	5128.2	5151.5	5177.6	5219.2	5245.2	5273.8	5305.0	5336.2	5354.4	5383.1	5398.6
25°	5003.3	5026.7	5055.3	5073.5	5104.8	5128.2	5159.4	5193.2	5203.6	5224.4	5240.0
27.5°	4829.1	4842.1	4855.2	4870.7	4888.9	4901.9	4920.1	4935.8	4946.1	4956.5	4966.9
30°	4553.4	4553.4	4553.4	4543.0	4550.8	4558.7	4561.2	4558.7	4558.7	4556.1	4556.1
32.5°	4189.4	4168.6	4145.2	4124.4	4116.6	4106.2	4101.0	4093.1	4080.2	4072.4	4074.9
35°	3697.9	3651.1	3622.5	3596.5	3575.7	3560.1	3552.3	3544.5	3541.9	3531.5	3521.0
37.5°	3084.2	3050.4	3029.6	3014.0	2995.8	2980.2	2982.7	2985.4	2993.1	2988.0	2990.5
40°	2434.1	2426.2	2434.1	2415.9	2410.6	2415.9	2428.8	2447.1	2457.5	2467.9	2486.1
42.5°	1851.5	1864.5	1882.8	1882.8	1890.5	1901.0	1916.5	1945.2	1960.7	1978.9	1999.8
45°	1393.9	1409.5	1432.9	1440.6	1445.9	1458.8	1477.1	1500.5	1510.8	1526.5	1544.7
47.5°	1074.0	1084.4	1097.4	1110.4	1123.4	1128.6	1146.8	1146.8	1159.9	1170.2	1175.4
50°	837.4	847.7	858.1	865.9	871.2	879.0	884.1	892.0	894.5	899.8	902.3
52.5°	655.3	668.3	668.3	673.5	681.3	689.1	686.5	689.1	691.7	691.7	699.5
55°	512.3	512.3	520.1	520.1	525.3	522.7	525.3	525.3	525.3	525.3	527.9
57.5°	382.2	384.9	392.7	387.5	384.9	390.0	384.9	390.0	387.5	392.7	384.9
60°	293.8	293.8	296.5	296.5	299.1	299.1	299.1	296.5	296.5	293.8	293.8
62.5°	221.0	223.6	226.3	223.6	223.6	223.6	221.0	221.0	218.5	215.8	215.8
65°	148.2	145.7	150.8	145.7	148.2	148.2	145.7	148.2	140.4	143.0	140.4
67.5°	106.6	104.0	101.5	104.0	101.5	98.8	98.8	101.5	104.0	96.2	96.2
70°	70.2	72.8	70.2	72.8	75.5	75.5	72.8	70.2	72.8	67.6	70.2
72.5°	44.2	44.2	44.2	44.2	44.2	46.8	46.8	46.8	41.6	41.6	39.0
75°	20.8	28.6	23.4	20.8	28.6	28.6	26.0	26.0	23.4	23.4	23.4
77.5°	20.8	15.6	15.6	15.6	15.6	15.6	15.6	15.6	13.0	15.6	13.0
80°	10.4	10.4	10.4	7.8	10.4	10.4	13.0	10.4	10.4	7.8	13.0
82.5°	5.2	5.2	5.2	0.0	2.6	5.2	5.2	2.6	5.2	5.2	2.6
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: P248986

CATALOG NUMBER: LD8B90D010 ER8B90830 8LBSW0MW

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8
2.5°	5385.6	5383.1	5385.6	5388.2	5385.6	5383.1	5385.6	5388.2	5377.8	5375.3	5380.4
5°	5500.1	5500.1	5505.2	5507.9	5505.2	5500.1	5500.1	5489.7	5481.9	5474.0	5471.5
7.5°	5598.9	5604.1	5609.2	5611.8	5609.2	5604.1	5598.9	5583.2	5567.6	5554.6	5544.3
10°	5658.7	5666.5	5676.9	5682.0	5676.9	5666.5	5658.7	5640.5	5619.6	5598.9	5583.2
12.5°	5684.7	5692.5	5705.5	5702.9	5705.5	5692.5	5684.7	5658.7	5635.2	5606.7	5583.2
15°	5666.5	5676.9	5689.8	5695.1	5689.8	5676.9	5666.5	5640.5	5619.6	5588.5	5565.0
17.5°	5609.2	5624.9	5632.7	5640.5	5632.7	5624.9	5609.2	5588.5	5559.9	5533.9	5510.4
20°	5531.2	5541.7	5552.1	5554.6	5552.1	5541.7	5531.2	5507.9	5463.7	5458.4	5440.2
22.5°	5419.5	5427.3	5450.6	5442.8	5450.6	5427.3	5419.5	5398.6	5383.1	5354.4	5336.2
25°	5258.2	5266.0	5268.6	5271.2	5268.6	5266.0	5258.2	5240.0	5224.4	5203.6	5193.2
27.5°	4980.0	4980.0	4985.1	4987.8	4985.1	4980.0	4980.0	4966.9	4956.5	4946.1	4935.8
30°	4558.7	4558.7	4558.7	4571.7	4558.7	4558.7	4558.7	4556.1	4556.1	4558.7	4558.7
32.5°	4072.4	4067.1	4062.0	4067.1	4062.0	4067.1	4072.4	4074.9	4072.4	4080.2	4093.1
35°	3521.0	3518.5	3526.3	3515.9	3526.3	3518.5	3521.0	3521.0	3531.5	3541.9	3544.5
37.5°	2993.1	2988.0	2998.4	2988.0	2998.4	2988.0	2993.1	2990.5	2988.0	2993.1	2985.4
40°	2491.3	2496.5	2496.5	2517.3	2496.5	2496.5	2491.3	2486.1	2467.9	2457.5	2447.1
42.5°	2010.2	2025.8	2020.6	2036.2	2020.6	2025.8	2010.2	1999.8	1978.9	1960.7	1945.2
45°	1555.1	1565.5	1565.5	1570.7	1565.5	1565.5	1555.1	1544.7	1526.5	1510.8	1500.5
47.5°	1193.6	1193.6	1193.6	1196.3	1193.6	1193.6	1193.6	1175.4	1170.2	1159.9	1146.8
50°	907.6	910.1	912.8	915.4	912.8	910.1	907.6	902.3	899.8	894.5	892.0
52.5°	696.9	699.5	694.4	699.5	694.4	699.5	696.9	699.5	691.7	691.7	689.1
55°	527.9	525.3	527.9	530.5	527.9	525.3	527.9	527.9	525.3	525.3	525.3
57.5°	387.5	382.2	382.2	382.2	382.2	382.2	387.5	384.9	392.7	387.5	390.0
60°	288.7	291.3	291.3	293.8	291.3	291.3	288.7	293.8	293.8	296.5	296.5
62.5°	213.2	221.0	215.8	221.0	215.8	221.0	213.2	215.8	215.8	218.5	221.0
65°	137.9	137.9	137.9	140.4	137.9	137.9	137.9	140.4	143.0	140.4	148.2
67.5°	93.7	96.2	101.5	98.8	101.5	96.2	93.7	96.2	96.2	104.0	101.5
70°	75.5	67.6	67.6	75.5	67.6	67.6	75.5	70.2	67.6	72.8	70.2
72.5°	44.2	39.0	44.2	44.2	44.2	39.0	44.2	39.0	41.6	41.6	46.8
75°	23.4	20.8	18.2	26.0	18.2	20.8	23.4	23.4	23.4	23.4	26.0
77.5°	15.6	13.0	18.2	18.2	18.2	13.0	15.6	13.0	15.6	13.0	15.6
80°	7.8	10.4	7.8	13.0	7.8	10.4	7.8	13.0	7.8	10.4	10.4
82.5°	2.6	5.2	5.2	5.2	5.2	5.2	2.6	2.6	5.2	5.2	2.6
85°	0.0	5.2	2.6	2.6	2.6	5.2	0.0	0.0	0.0	0.0	0.0
87.5°	2.6	0.0	0.0	2.6	0.0	0.0	2.6	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: P248986

CATALOG NUMBER: LD8B90D010 ER8B90830 8LBSW0MW

**CANDELA DISTRIBUTION (continued):**

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8
2.5°	5380.4	5372.6	5375.3	5359.6	5359.6	5354.4	5357.1	5344.0	5338.9	5333.6	5341.4
5°	5458.4	5445.5	5435.0	5411.6	5398.6	5383.1	5375.3	5354.4	5336.2	5320.6	5318.0
7.5°	5520.8	5492.2	5474.0	5442.8	5419.5	5401.3	5375.3	5346.6	5323.2	5302.4	5286.8
10°	5546.8	5518.3	5489.7	5450.6	5424.6	5390.8	5364.8	5328.4	5297.2	5268.6	5250.3
12.5°	5549.4	5513.0	5487.0	5442.8	5409.0	5372.6	5344.0	5302.4	5266.0	5237.4	5208.8
15°	5526.1	5492.2	5461.0	5414.2	5380.4	5346.6	5312.8	5268.6	5234.8	5201.0	5180.2
17.5°	5474.0	5442.8	5406.4	5362.2	5331.0	5299.8	5263.4	5227.0	5187.9	5151.5	5125.5
20°	5406.4	5372.6	5341.4	5297.2	5271.2	5237.4	5203.6	5164.6	5133.3	5097.0	5068.4
22.5°	5305.0	5273.8	5245.2	5219.2	5177.6	5151.5	5128.2	5084.0	5052.7	5018.9	4987.8
25°	5159.4	5128.2	5104.8	5073.5	5055.3	5026.7	5003.3	4964.3	4935.8	4904.5	4878.5
27.5°	4920.1	4901.9	4888.9	4870.7	4855.2	4842.1	4829.1	4797.9	4777.1	4748.5	4722.5
30°	4561.2	4558.7	4550.8	4543.0	4553.4	4553.4	4553.4	4548.3	4530.1	4509.2	4491.0
32.5°	4101.0	4106.2	4116.6	4124.4	4145.2	4168.6	4189.4	4199.8	4199.8	4186.8	4179.0
35°	3552.3	3560.1	3575.7	3596.5	3622.5	3651.1	3697.9	3708.3	3716.0	3716.0	3705.7
37.5°	2982.7	2980.2	2995.8	3014.0	3029.6	3050.4	3084.2	3092.0	3105.0	3099.8	3089.3
40°	2428.8	2415.9	2410.6	2415.9	2434.1	2426.2	2434.1	2428.8	2428.8	2410.6	2410.6
42.5°	1916.5	1901.0	1890.5	1882.8	1882.8	1864.5	1851.5	1838.6	1830.8	1817.7	1815.2
45°	1477.1	1458.8	1445.9	1440.6	1432.9	1409.5	1393.9	1378.2	1360.0	1354.9	1357.5
47.5°	1146.8	1128.6	1123.4	1110.4	1097.4	1084.4	1074.0	1055.8	1053.2	1042.8	1053.2
50°	884.1	879.0	871.2	865.9	858.1	847.7	837.4	827.0	821.7	821.7	824.3
52.5°	686.5	689.1	681.3	673.5	668.3	668.3	655.3	652.7	652.7	642.3	652.7
55°	525.3	522.7	525.3	520.1	520.1	512.3	512.3	504.5	504.5	496.7	501.9
57.5°	384.9	390.0	384.9	387.5	392.7	384.9	382.2	374.4	379.7	374.4	377.1
60°	299.1	299.1	299.1	296.5	296.5	293.8	293.8	291.3	291.3	286.0	291.3
62.5°	221.0	223.6	223.6	223.6	226.3	223.6	221.0	223.6	221.0	221.0	223.6
65°	145.7	148.2	148.2	145.7	150.8	145.7	148.2	150.8	153.4	150.8	153.4
67.5°	98.8	98.8	101.5	104.0	101.5	104.0	106.6	104.0	106.6	111.9	106.6
70°	72.8	75.5	75.5	72.8	70.2	72.8	70.2	78.0	78.0	78.0	83.2
72.5°	46.8	46.8	44.2	44.2	44.2	44.2	44.2	52.0	46.8	44.2	49.5
75°	26.0	28.6	28.6	20.8	23.4	28.6	20.8	23.4	31.3	26.0	31.3
77.5°	15.6	15.6	15.6	15.6	15.6	15.6	20.8	18.2	18.2	18.2	20.8
80°	13.0	10.4	10.4	7.8	10.4	10.4	10.4	15.6	13.0	13.0	15.6
82.5°	5.2	5.2	2.6	0.0	5.2	5.2	5.2	5.2	5.2	5.2	10.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2	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: P248986

CATALOG NUMBER: LD8B90D010 ER8B90830 8LBSW0MW

**CANDELA DISTRIBUTION (continued):**

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°
0°	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8
2.5°	5320.6	5320.6	5318.0	5312.8	5302.4	5302.4	5299.8	5292.0	5286.8	5284.2	5284.2
5°	5294.5	5284.2	5273.8	5245.2	5245.2	5240.0	5224.4	5213.9	5208.8	5195.7	5190.6
7.5°	5271.2	5240.0	5221.8	5203.6	5180.2	5169.7	5151.5	5143.7	5125.5	5112.6	5104.8
10°	5213.9	5193.2	5169.7	5141.2	5123.0	5102.2	5081.3	5065.8	5042.4	5029.3	5018.9
12.5°	5175.0	5143.7	5123.0	5091.7	5060.6	5042.4	5013.8	4995.6	4972.1	4946.1	4930.5
15°	5138.6	5104.8	5076.2	5042.4	5008.5	4987.8	4953.9	4933.2	4899.4	4873.3	4855.2
17.5°	5084.0	5055.3	5024.2	4982.5	4951.4	4925.4	4888.9	4863.0	4831.7	4797.9	4779.7
20°	5026.7	4992.9	4961.8	4920.1	4888.9	4857.7	4821.3	4792.7	4756.2	4725.1	4704.3
22.5°	4951.4	4912.3	4886.3	4844.7	4808.3	4774.6	4740.7	4706.9	4673.1	4647.1	4623.6
25°	4842.1	4800.5	4771.9	4738.1	4704.3	4678.3	4636.7	4615.9	4582.1	4558.7	4535.2
27.5°	4686.0	4654.9	4628.9	4595.0	4566.5	4545.7	4514.4	4493.7	4465.0	4444.2	4426.0
30°	4457.3	4431.3	4407.8	4374.0	4353.2	4335.1	4306.4	4288.2	4267.4	4244.0	4238.8
32.5°	4150.4	4129.5	4106.2	4082.8	4067.1	4056.8	4033.3	4022.9	4002.2	3989.1	3976.2
35°	3687.5	3669.3	3656.3	3645.9	3640.7	3643.3	3638.1	3648.5	3653.6	3651.1	3653.6
37.5°	3081.6	3071.1	3076.4	3084.2	3110.2	3144.0	3175.2	3222.0	3253.2	3284.5	3313.1
40°	2405.5	2413.3	2434.1	2480.8	2548.5	2623.9	2694.2	2782.6	2871.0	2933.4	2990.5
42.5°	1815.2	1838.6	1890.5	1958.2	2059.6	2171.4	2280.7	2410.6	2517.3	2621.3	2694.2
45°	1365.3	1396.4	1464.1	1557.7	1669.5	1799.5	1937.4	2083.0	2210.4	2317.1	2397.7
47.5°	1063.6	1092.2	1159.9	1258.7	1396.4	1531.7	1674.7	1825.5	1958.2	2062.2	2132.4
50°	839.9	876.3	936.2	1040.2	1178.1	1321.1	1469.3	1617.5	1742.4	1830.8	1893.2
52.5°	660.5	694.4	751.5	860.8	1001.2	1144.2	1282.0	1427.7	1536.9	1622.7	1664.3
55°	512.3	543.5	603.3	694.4	827.0	967.4	1105.2	1230.1	1331.4	1393.9	1432.9
57.5°	390.0	413.5	455.1	546.1	665.8	795.7	912.8	1037.6	1115.7	1159.9	1185.8
60°	296.5	314.7	358.9	429.1	538.3	650.2	748.9	842.6	905.0	941.4	967.4
62.5°	223.6	244.5	275.6	335.5	418.6	509.7	592.9	663.1	715.1	738.6	756.8
65°	153.4	169.0	192.5	239.2	309.4	374.4	439.5	491.5	525.3	551.4	561.7
67.5°	114.4	124.8	137.9	174.3	223.6	275.6	319.8	356.2	392.7	403.1	421.3
70°	85.8	93.7	106.6	132.6	161.2	197.6	234.1	254.9	280.9	299.1	304.3
72.5°	54.6	57.2	70.2	85.8	109.2	132.6	156.1	174.3	189.9	200.3	205.4
75°	31.3	46.8	46.8	62.4	78.0	88.4	104.0	117.0	124.8	132.6	132.6
77.5°	20.8	28.6	31.3	39.0	46.8	59.8	72.8	80.6	88.4	91.0	91.0
80°	18.2	20.8	20.8	28.6	33.8	44.2	52.0	54.6	59.8	62.4	67.6
82.5°	7.8	10.4	13.0	20.8	23.4	23.4	31.3	33.8	39.0	41.6	41.6
85°	2.6	5.2	5.2	7.8	13.0	15.6	18.2	20.8	23.4	23.4	26.0
87.5°	2.6	2.6	0.0	2.6	5.2	5.2	10.4	10.4	10.4	15.6	15.6
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: P248986

CATALOG NUMBER: LD8B90D010 ER8B90830 8LBSW0MW

**CANDELA DISTRIBUTION (continued):**

	330°	335°	340°	345°	350°	355°	360°
0°	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8	5325.8
2.5°	5279.0	5281.6	5271.2	5268.6	5263.4	5266.0	5271.2
5°	5182.8	5185.4	5175.0	5164.6	5164.6	5161.9	5164.6
7.5°	5091.7	5094.4	5078.8	5073.5	5063.1	5065.8	5065.8
10°	5000.7	5000.7	4977.4	4974.7	4966.9	4964.3	4964.3
12.5°	4912.3	4904.5	4886.3	4875.9	4881.2	4865.5	4865.5
15°	4834.3	4821.3	4797.9	4790.1	4777.1	4771.9	4771.9
17.5°	4753.7	4743.3	4722.5	4706.9	4691.3	4688.7	4691.3
20°	4675.6	4665.3	4639.3	4628.9	4615.9	4615.9	4610.7
22.5°	4597.6	4587.2	4563.9	4556.1	4537.9	4537.9	4540.5
25°	4517.0	4509.2	4483.2	4478.1	4475.5	4465.0	4470.2
27.5°	4407.8	4402.6	4381.8	4374.0	4363.6	4361.1	4366.2
30°	4207.6	4199.8	4184.2	4176.4	4158.2	4160.8	4165.9
32.5°	3958.0	3947.6	3926.7	3918.9	3903.4	3898.1	3900.7
35°	3645.9	3638.1	3619.9	3619.9	3604.3	3599.1	3604.3
37.5°	3328.7	3336.4	3328.7	3336.4	3328.7	3326.0	3328.7
40°	3029.6	3058.2	3063.3	3092.0	3081.6	3097.2	3094.6
42.5°	2743.5	2790.3	2808.6	2831.9	2826.8	2837.2	2845.0
45°	2454.8	2493.9	2512.1	2527.7	2530.3	2535.5	2538.1
47.5°	2181.8	2213.0	2215.6	2233.8	2231.2	2231.2	2239.0
50°	1927.0	1947.8	1952.9	1966.0	1955.6	1950.3	1952.9
52.5°	1690.3	1711.1	1705.9	1711.1	1698.2	1692.9	1695.5
55°	1448.4	1458.8	1458.8	1458.8	1443.3	1443.3	1443.3
57.5°	1201.4	1204.1	1198.8	1201.4	1198.8	1183.2	1180.6
60°	975.2	975.2	972.6	975.2	967.4	959.6	959.6
62.5°	761.9	767.1	777.5	767.1	761.9	767.1	759.3
65°	569.6	579.9	577.3	582.5	579.9	579.9	574.7
67.5°	429.1	431.7	434.3	436.9	436.9	436.9	436.9
70°	314.7	322.5	319.8	319.8	319.8	319.8	335.5
72.5°	210.7	221.0	218.5	223.6	223.6	228.8	223.6
75°	143.0	153.4	148.2	156.1	153.4	148.2	161.2
77.5°	96.2	101.5	104.0	106.6	104.0	101.5	104.0
80°	67.6	72.8	70.2	72.8	72.8	72.8	75.5
82.5°	41.6	49.5	46.8	49.5	46.8	49.5	49.5
85°	28.6	31.3	26.0	31.3	28.6	28.6	33.8
87.5°	18.2	15.6	15.6	18.2	15.6	18.2	15.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)