

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: P#

Luminaire Tested: **LD4C80D010 EX4C809027 4LBSQLWWH**

Issue Date: 2/18/2022

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P219529)
Test Lab: INNOVATION CENTER
Issue Date: 2/18/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C80D010 EX4C809027 4LBSQLWWH
Description: 4 INCH 8000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

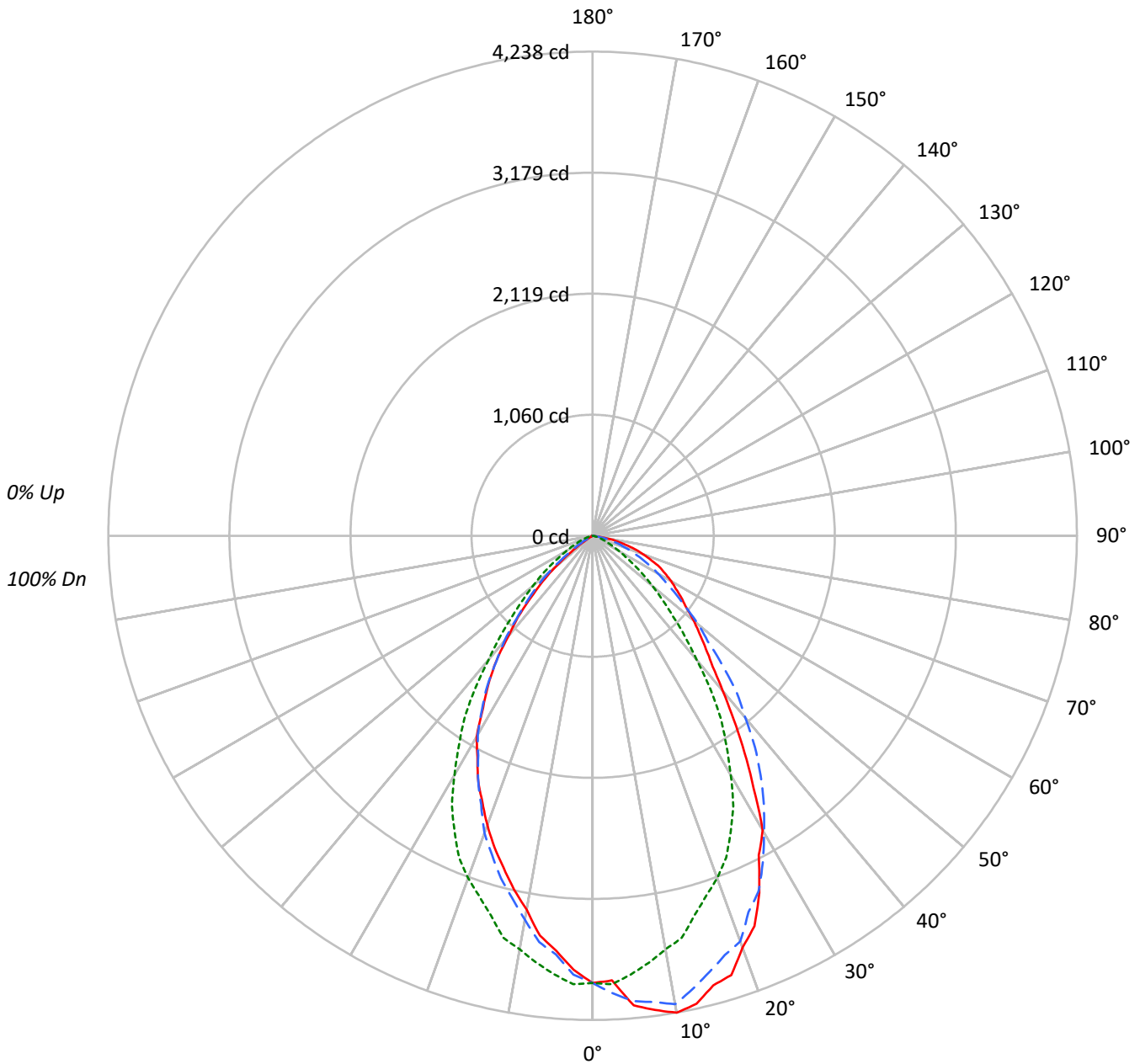
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5611.0 lumens
Efficiency: N/A
Efficacy: 62.7 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 89.5
Input Voltage (V):
Input Current (Ain): 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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58			
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	54	53			
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48			
8	70	59	52	47	69	58	51	46	57	51	46	56	50	46	55	50	46	44			
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41			
10	62	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	377696	377696	377696
5°	399595	373240	353239
10°	415267	360077	325579
15°	406963	343661	300527
20°	393752	327235	276634
25°	367289	304305	252351
30°	331551	269314	225918
35°	273111	230553	187429
40°	222881	177952	144246
45°	191502	135146	103761
50°	173317	102870	65523
55°	159492	74203	23703
60°	153089	50715	3628
65°	147855	34292	1096
70°	132396	23810	1354
75°	108523	12265	0
80°	67846	5223	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	366.8	6.5
10°-20°	988.1	17.6
20°-30°	1319.4	23.5
30°-40°	1252.5	22.3
40°-50°	865.8	15.4
50°-60°	478.4	8.5
60°-70°	237.6	4.2
70°-80°	93.6	1.7
80°-90°	8.9	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°	2674.3	47.7
0°-40°	3926.8	70.0
0°-60°	5270.9	93.9
0°-90°	5611.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5611.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3914	3914	3914	3914	3914	
5°	4126	4088	3854	3680	3647	395
15°	4074	3952	3440	3102	3008	1152
25°	3450	3436	2858	2370	2370	1573
35°	2319	2563	1957	1610	1591	1453
45°	1403	1610	990	812	760	1095
55°	948	892	441	225	141	853
65°	648	469	150	5	5	629
75°	291	178	33	0	0	310
85°	0	5	0	0	0	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	3914.4	3914.4	3914.4	3914.4	3914.4	3914.4	3914.4	3914.4	3914.4	3914.4	3914.4
2.5°	3895.6	4003.5	4012.9	4003.5	4017.7	4012.9	4036.5	4012.9	4041.2	3998.9	4008.3
5°	4125.6	4083.4	4172.5	4125.6	4125.6	4121.0	4106.9	4102.1	4121.0	4060.0	4088.1
7.5°	4186.7	4247.7	4327.6	4229.0	4233.6	4233.6	4205.5	4196.1	4196.1	4083.4	4116.3
10°	4238.4	4200.7	4243.0	4205.5	4238.4	4233.6	4252.3	4191.3	4233.6	4167.9	4163.2
12.5°	4196.1	4181.9	4238.4	4177.3	4158.6	4163.2	4139.8	4125.6	4139.8	4064.6	4060.0
15°	4074.0	4088.1	4172.5	4106.9	4097.5	4088.1	4060.0	4012.9	4050.6	3947.3	3952.1
17.5°	4031.9	4008.3	4022.5	3966.0	3980.2	3970.8	3966.0	3923.9	3914.4	3848.7	3848.7
20°	3834.7	3886.2	3886.2	3848.7	3848.7	3844.1	3783.1	3820.6	3778.3	3759.5	3778.3
22.5°	3698.5	3703.3	3703.3	3670.3	3675.1	3656.4	3623.5	3599.9	3623.5	3599.9	3562.4
25°	3449.9	3459.2	3515.5	3454.5	3445.1	3463.8	3435.7	3421.5	3417.0	3360.7	3435.7
27.5°	3149.4	3243.2	3238.6	3215.0	3243.2	3205.7	3191.7	3196.3	3210.4	3205.7	3224.4
30°	2975.8	2989.8	3003.9	2985.2	2989.8	2975.8	2975.8	2980.4	3017.9	3003.9	2999.2
32.5°	2623.7	2670.6	2708.3	2708.3	2712.9	2727.0	2722.2	2820.8	2844.3	2797.4	2788.1
35°	2318.6	2351.5	2384.3	2389.0	2450.1	2454.7	2459.5	2487.6	2553.2	2567.4	2562.6
37.5°	2027.7	2060.4	2069.8	2112.1	2145.0	2177.8	2215.4	2253.0	2309.2	2356.1	2332.8
40°	1769.5	1783.5	1807.0	1825.8	1891.4	1891.4	1910.2	1985.4	2046.5	2084.0	2079.2
42.5°	1553.6	1558.2	1577.0	1609.9	1671.0	1656.8	1671.0	1722.6	1811.6	1816.4	1868.1
45°	1403.4	1398.6	1412.8	1417.4	1455.1	1473.8	1483.2	1520.7	1595.8	1605.1	1609.9
47.5°	1267.3	1262.6	1286.1	1295.5	1309.4	1328.2	1328.2	1333.0	1361.1	1384.7	1365.9
50°	1154.6	1154.6	1154.6	1164.0	1187.5	1182.7	1187.5	1206.3	1220.3	1210.9	1206.3
52.5°	1032.5	1051.3	1065.4	1070.2	1074.8	1074.8	1079.6	1070.2	1065.4	1051.3	1023.1
55°	948.1	966.9	966.9	966.9	966.9	985.6	962.3	966.9	966.9	929.4	891.8
57.5°	863.7	882.5	896.4	877.7	896.4	877.7	868.3	863.7	854.1	816.6	760.4
60°	793.3	802.7	797.9	793.3	802.7	788.5	779.1	760.4	751.0	699.3	661.8
62.5°	713.5	718.1	722.9	713.5	704.1	699.3	680.6	652.4	633.7	591.4	558.5
65°	647.6	633.7	628.9	624.3	614.9	600.8	586.8	553.9	539.7	502.2	469.3
67.5°	549.1	544.5	553.9	539.7	516.3	516.3	502.2	474.1	441.1	417.8	384.9
70°	469.3	464.7	455.3	441.1	436.5	417.8	417.8	384.9	375.5	333.2	305.1
72.5°	384.9	384.9	370.7	356.7	342.6	333.2	328.6	305.1	291.1	267.6	244.0
75°	291.1	291.1	286.3	272.1	262.8	253.4	248.8	230.0	215.9	192.5	178.4
77.5°	206.5	206.5	187.7	178.4	183.0	173.6	164.2	159.6	154.8	140.9	122.1
80°	122.1	117.3	103.3	107.9	103.3	103.3	98.6	93.8	84.4	75.0	65.6
82.5°	32.9	37.5	37.5	37.5	42.3	32.9	32.9	32.9	37.5	37.5	23.5
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	4.8	4.8
87.5°	4.8	9.4	18.8	18.8	18.8	18.8	18.8	14.2	14.2	14.2	9.4
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	3914.4	3914.4	3914.4	3914.4	3914.4	3914.4	3914.4	3914.4	3914.4	3914.4	3914.4
2.5°	3961.4	3956.7	3961.4	3928.5	4003.5	3947.3	3937.9	3928.5	3961.4	3928.5	3881.6
5°	4045.8	3998.9	3984.8	3970.8	4012.9	3947.3	3933.3	3937.9	3914.4	3853.5	3858.1
7.5°	4074.0	4031.9	3989.6	3900.4	3937.9	3923.9	3886.2	3858.1	3820.6	3768.9	3759.5
10°	4083.4	4036.5	3975.4	3947.3	3891.0	3872.3	3858.1	3811.2	3764.3	3675.1	3651.6
12.5°	4055.2	3998.9	3923.9	3900.4	3858.1	3797.0	3764.3	3717.2	3675.1	3604.7	3553.0
15°	3933.3	3886.2	3862.9	3783.1	3764.3	3726.6	3661.0	3595.3	3534.3	3440.3	3412.2
17.5°	3792.4	3773.7	3750.2	3689.1	3684.5	3647.0	3585.9	3529.5	3449.9	3304.2	3257.3
20°	3647.0	3647.0	3571.8	3548.4	3595.3	3520.1	3473.2	3421.5	3257.3	3186.9	3102.5
22.5°	3539.1	3487.4	3445.1	3407.6	3412.2	3365.3	3299.6	3196.3	3135.2	3050.8	2952.3
25°	3327.8	3346.5	3252.7	3238.6	3252.7	3144.6	3111.9	3027.3	2938.1	2858.3	2783.3
27.5°	3196.3	3144.6	3083.8	3032.1	3032.1	2989.8	2896.0	2877.3	2741.0	2666.0	2572.0
30°	2999.2	2961.7	2910.0	2835.0	2825.6	2792.7	2717.6	2670.6	2529.9	2417.2	2365.5
32.5°	2750.4	2736.4	2694.1	2609.7	2581.6	2543.9	2450.1	2370.3	2304.6	2177.8	2116.9
35°	2572.0	2520.5	2431.3	2360.9	2337.4	2271.7	2196.5	2140.2	2069.8	1957.3	1877.5
37.5°	2304.6	2253.0	2168.4	2084.0	2084.0	2018.3	1915.0	1858.7	1760.1	1694.3	1628.7
40°	2069.8	2004.2	1919.8	1821.2	1807.0	1713.1	1671.0	1577.0	1515.9	1412.8	1403.4
42.5°	1807.0	1746.0	1671.0	1595.8	1539.5	1492.6	1384.7	1314.2	1248.6	1196.9	1182.7
45°	1567.6	1487.8	1422.2	1328.2	1271.9	1215.7	1145.2	1098.3	1046.7	990.4	957.5
47.5°	1361.1	1295.5	1201.5	1117.1	1060.8	1032.5	952.7	901.2	858.9	821.4	797.9
50°	1150.0	1070.2	1018.5	924.6	915.2	849.5	783.9	741.6	718.1	685.3	652.4
52.5°	990.4	915.2	844.8	774.5	736.8	713.5	652.4	610.1	577.4	553.9	535.1
55°	835.4	769.7	713.5	643.0	619.5	586.8	516.3	507.0	474.1	441.1	417.8
57.5°	718.1	657.0	591.4	544.5	502.2	478.8	422.4	384.9	366.1	338.0	314.4
60°	610.1	544.5	492.8	436.5	417.8	384.9	342.6	309.8	286.3	262.8	239.4
62.5°	511.6	455.3	399.0	352.0	323.8	305.1	272.1	244.0	220.7	201.9	183.0
65°	422.4	370.7	323.8	276.9	262.8	239.4	215.9	192.5	173.6	150.2	131.5
67.5°	347.4	300.5	253.4	220.7	206.5	197.1	169.0	145.5	131.5	117.3	98.6
70°	272.1	239.4	201.9	173.6	159.6	145.5	126.7	112.7	93.8	84.4	70.4
72.5°	211.3	183.0	150.2	126.7	117.3	107.9	89.2	75.0	65.6	56.3	46.9
75°	150.2	126.7	107.9	84.4	79.8	75.0	61.0	51.7	42.3	32.9	28.1
77.5°	103.3	84.4	65.6	56.3	51.7	42.3	37.5	28.1	23.5	18.8	14.2
80°	56.3	42.3	32.9	28.1	23.5	18.8	18.8	14.2	9.4	9.4	4.8
82.5°	18.8	14.2	9.4	4.8	4.8	4.8	4.8	4.8	4.8	0.0	4.8
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°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	3914.4	3914.4	3914.4	3914.4	3914.4	3914.4	3914.4	3914.4	3914.4	3914.4	3914.4
2.5°	3909.8	3858.1	3872.3	3872.3	3862.9	3862.9	3853.5	3839.3	3844.1	3815.8	3754.9
5°	3867.5	3801.8	3792.4	3801.8	3764.3	3754.9	3736.2	3764.3	3679.7	3712.6	3675.1
7.5°	3745.6	3684.5	3670.3	3703.3	3656.4	3628.1	3623.5	3661.0	3585.9	3548.4	3506.1
10°	3609.3	3585.9	3543.6	3520.1	3506.1	3510.7	3473.2	3426.3	3412.2	3402.8	3365.3
12.5°	3487.4	3435.7	3398.2	3370.1	3360.7	3360.7	3299.6	3290.3	3248.0	3238.6	3182.3
15°	3341.7	3280.9	3257.3	3219.8	3186.9	3205.7	3135.2	3116.5	3102.5	3041.5	3050.8
17.5°	3215.0	3149.4	3093.1	3069.6	3041.5	3013.3	2947.5	2961.7	2928.7	2928.7	2844.3
20°	3050.8	2980.4	2938.1	2891.2	2891.2	2853.7	2806.8	2811.4	2769.1	2727.0	2651.8
22.5°	2877.3	2802.0	2750.4	2731.6	2684.7	2675.3	2619.1	2604.9	2548.6	2553.2	2487.6
25°	2694.1	2619.1	2548.6	2553.2	2511.1	2492.4	2459.5	2393.8	2370.3	2342.1	2323.4
27.5°	2478.2	2426.5	2365.5	2360.9	2281.1	2285.7	2243.6	2224.8	2168.4	2182.5	2140.2
30°	2281.1	2206.1	2149.6	2135.6	2102.7	2093.3	2027.7	1999.4	2008.9	1971.2	1947.9
32.5°	2079.2	1966.7	1943.1	1915.0	1896.2	1872.7	1825.8	1844.6	1802.3	1811.6	1774.1
35°	1811.6	1764.7	1703.7	1703.7	1684.9	1666.2	1633.5	1652.2	1609.9	1591.2	1553.6
37.5°	1586.4	1544.3	1483.2	1502.0	1469.1	1440.9	1412.8	1417.4	1379.9	1375.3	1337.6
40°	1342.4	1318.8	1276.7	1276.7	1253.2	1253.2	1239.0	1225.0	1201.5	1173.4	1131.1
42.5°	1112.3	1093.6	1074.8	1079.6	1046.7	1074.8	1037.3	1060.8	985.6	981.0	952.7
45°	943.3	901.2	905.8	887.1	868.3	877.7	844.8	854.1	812.0	802.7	774.5
47.5°	765.1	751.0	722.9	713.5	713.5	699.3	685.3	680.6	661.8	638.3	600.8
50°	628.9	577.4	567.8	553.9	544.5	544.5	525.7	497.6	502.2	478.8	441.1
52.5°	492.8	450.5	431.8	427.2	408.4	399.0	375.5	356.7	342.6	333.2	309.8
55°	380.1	342.6	319.2	319.2	291.1	291.1	258.2	244.0	225.3	206.5	192.5
57.5°	286.3	267.6	244.0	225.3	215.9	192.5	173.6	150.2	136.1	107.9	89.2
60°	215.9	197.1	173.6	159.6	150.2	126.7	103.3	84.4	51.7	42.3	37.5
62.5°	159.6	140.9	117.3	107.9	98.6	79.8	56.3	28.1	14.2	14.2	14.2
65°	117.3	93.8	75.0	65.6	56.3	42.3	18.8	9.4	4.8	4.8	4.8
67.5°	79.8	61.0	42.3	37.5	28.1	14.2	4.8	4.8	4.8	4.8	4.8
70°	51.7	37.5	18.8	14.2	9.4	4.8	4.8	4.8	4.8	4.8	4.8
72.5°	32.9	18.8	9.4	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	18.8	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	9.4	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	4.8	4.8	4.8
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: P#

CATALOG NUMBER: LD4C80D010 EX4C809027 4LBSQLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3914.4	3914.4	3914.4	3914.4	3914.4	3914.4	3914.4	3914.4
2.5°	3820.6	3787.7	3806.4	3764.3	3783.1	3815.8	3792.4	3801.8
5°	3689.1	3670.3	3647.0	3585.9	3632.8	3670.3	3651.6	3647.0
7.5°	3548.4	3482.6	3515.5	3496.8	3487.4	3524.9	3482.6	3529.5
10°	3402.8	3355.9	3351.3	3318.4	3318.4	3346.5	3351.3	3323.0
12.5°	3186.9	3163.6	3163.6	3158.8	3154.0	3182.3	3186.9	3172.9
15°	3032.1	3022.7	2999.2	2994.6	2966.4	3008.5	3013.3	3008.5
17.5°	2844.3	2848.9	2825.6	2825.6	2844.3	2858.3	2820.8	2858.3
20°	2717.6	2694.1	2684.7	2642.4	2666.0	2689.5	2689.5	2694.1
22.5°	2534.5	2497.0	2511.1	2487.6	2473.4	2506.4	2506.4	2520.5
25°	2328.0	2328.0	2337.4	2323.4	2332.8	2351.5	2337.4	2370.3
27.5°	2130.9	2149.6	2149.6	2130.9	2140.2	2196.5	2220.0	2182.5
30°	1947.9	1952.5	1966.7	1957.3	1985.4	2004.2	1999.4	2027.7
32.5°	1741.4	1764.7	1774.1	1760.1	1769.5	1811.6	1788.3	1783.5
35°	1581.8	1539.5	1534.9	1539.5	1558.2	1567.6	1558.2	1591.2
37.5°	1351.7	1337.6	1318.8	1323.6	1337.6	1356.5	1365.9	1389.3
40°	1131.1	1112.3	1112.3	1107.7	1093.6	1145.2	1145.2	1145.2
42.5°	938.7	934.0	910.6	910.6	929.4	943.3	934.0	966.9
45°	769.7	751.0	736.8	736.8	751.0	751.0	765.1	760.4
47.5°	605.5	586.8	591.4	577.4	591.4	610.1	586.8	591.4
50°	455.3	455.3	445.9	455.3	450.5	455.3	445.9	436.5
52.5°	309.8	352.0	356.7	338.0	295.7	258.2	234.6	253.4
55°	178.4	159.6	159.6	154.8	145.5	140.9	126.7	140.9
57.5°	89.2	79.8	79.8	79.8	75.0	70.4	61.0	61.0
60°	37.5	32.9	32.9	28.1	23.5	18.8	14.2	18.8
62.5°	14.2	9.4	9.4	9.4	9.4	9.4	9.4	9.4
65°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
67.5°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
70°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	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
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)