

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: FAIL-SAFE

Report Number: P735578

Luminaire Tested: **4APN6-19-B2750-W2D-CP250-2700K**

Issue Date: 1/5/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P735578  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P709119)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 1/5/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 4APN6-19-B2750-W2D-CP250-2700K  
Description: 4FT 1900 AMBIENT LUMEN OUTPUT APN WITH BIO UP LEDS AT 2700K CCT, AND CP250 LENS  
  
Light Source: -  
Ballast/Driver: -

**Summary**

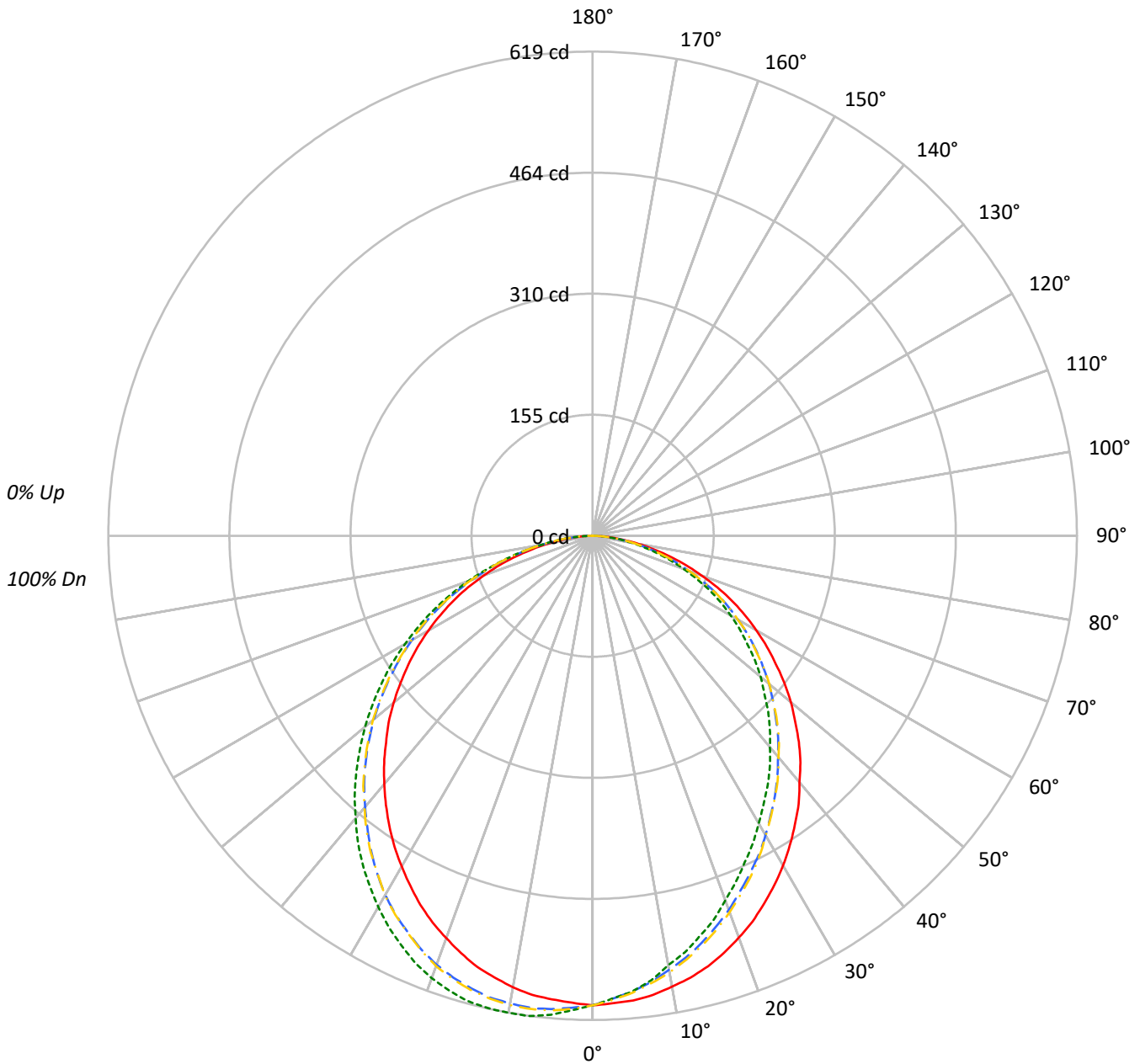
Lumens per Lamp: N/A  
Luminaire Lumens: 1610.0 lumens  
Efficiency: N/A  
Efficacy: 84.7 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 19  
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

TEST NUMBER: P735578

CATALOG NUMBER: 4APN6-19-B2750-W2D-CP250-2700K

### Luminous Intensity Polar Plot





TEST NUMBER: P735578

CATALOG NUMBER: 4APN6-19-B2750-W2D-CP250-2700K

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									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	109	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	84																			
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	76	72	70																			
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61	59																			
4	83	71	62	55	81	70	61	55	67	60	54	65	59	54	63	57	53	51																			
5	76	63	54	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44																			
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	41	38																			
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34																			
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30																			
9	57	43	35	30	55	43	35	30	42	35	30	41	34	29	40	34	29	27																			
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	5538	5538	5538	5538
5°	5523	5415	5510	5692
10°	5483	5223	5491	5802
15°	5442	5060	5449	5883
20°	5368	4868	5374	5908
25°	5281	4687	5302	5883
30°	5187	4522	5201	5838
35°	5079	4390	5101	5775
40°	4956	4244	4990	5676
45°	4864	4139	4873	5573
50°	4747	4026	4765	5449
55°	4599	3878	4631	5299
60°	4460	3759	4475	5113
65°	4283	3602	4283	4892
70°	3992	3334	3976	4562
75°	3632	3026	3583	4092
80°	3140	2598	3034	3501
85°	2445	1948	2297	2879



TEST NUMBER: P735578

CATALOG NUMBER: 4APN6-19-B2750-W2D-CP250-2700K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.7	3.5
10°-20°	161.0	10.0
20°-30°	239.3	14.9
30°-40°	282.1	17.5
40°-50°	287.2	17.8
50°-60°	255.9	15.9
60°-70°	192.8	12.0
70°-80°	107.2	6.7
80°-90°	27.9	1.7
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°	457.0	28.4
0°-40°	739.1	45.9
0°-60°	1282.2	79.6
0°-90°	1610.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1610.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	600	600	600	600	600	
5°	596	585	595	615	596	57
15°	570	530	570	616	570	161
25°	519	460	521	578	519	239
35°	451	390	453	513	451	282
45°	373	317	374	427	373	287
55°	286	241	288	329	286	256
65°	196	165	196	224	196	194
75°	102	85	100	115	102	108
85°	23	18	22	27	23	28
90°	0	0	0	0	0	



TEST NUMBER: P735578

CATALOG NUMBER: 4APN6-19-B2750-W2D-CP250-2700K

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	600.3	600.3	600.3	600.3	600.3	600.3	600.3	600.3	600.3	600.3	600.3
2.5°	598.3	598.3	598.9	596.3	592.9	591.5	590.8	590.1	591.5	592.1	591.5
5°	596.3	594.9	593.5	590.1	586.1	583.3	581.9	581.3	582.7	584.7	582.7
7.5°	592.1	589.5	586.7	581.9	577.3	573.1	571.1	569.7	571.1	573.1	571.8
10°	585.3	581.9	577.9	572.5	565.7	560.9	558.9	556.9	557.5	557.5	557.5
12.5°	578.5	573.9	569.1	562.3	554.8	549.4	546.0	543.3	544.6	545.3	545.3
15°	569.7	563.7	556.9	549.4	541.9	535.8	531.7	529.0	529.7	529.7	530.4
17.5°	558.9	552.1	545.3	536.5	527.6	520.8	516.1	512.7	514.0	514.8	515.4
20°	546.7	539.2	531.7	522.2	512.7	505.2	500.4	496.4	495.8	495.8	496.4
22.5°	533.8	525.6	516.8	506.6	496.4	488.2	483.5	479.4	478.8	478.8	479.4
25°	518.8	510.0	501.2	491.0	480.1	472.0	465.8	461.8	461.1	460.4	461.8
27.5°	503.2	494.4	485.6	475.4	463.8	455.7	449.5	445.5	444.1	443.5	444.8
30°	486.9	476.7	467.2	456.3	446.1	438.0	431.9	427.1	425.8	424.5	425.8
32.5°	469.2	459.1	448.9	438.0	427.8	419.7	413.5	408.8	407.5	406.7	408.1
35°	450.9	440.7	431.2	420.3	410.1	402.1	395.9	391.9	390.5	389.8	390.5
37.5°	432.5	422.4	412.9	402.1	391.9	383.7	377.6	373.5	372.8	372.1	372.8
40°	411.5	402.7	393.2	383.0	372.8	364.7	359.9	355.2	353.8	352.4	354.5
42.5°	393.2	384.4	374.9	365.4	355.2	347.0	341.6	337.5	336.2	335.4	336.2
45°	372.8	363.3	353.8	345.0	335.4	328.0	322.6	318.5	317.8	317.2	317.8
47.5°	351.1	343.0	334.8	326.0	316.4	309.0	304.2	300.2	298.8	297.4	298.8
50°	330.7	322.6	314.4	306.3	297.4	290.6	285.9	281.8	281.1	280.5	281.1
52.5°	309.0	300.8	293.4	285.2	277.7	270.9	266.2	262.8	262.1	261.5	262.1
55°	285.9	279.1	272.3	265.5	258.1	251.9	247.9	243.8	242.5	241.1	242.5
57.5°	264.1	258.1	251.3	244.5	237.7	232.3	228.2	224.8	224.1	223.4	224.1
60°	241.7	236.3	230.2	224.1	217.3	211.9	208.5	205.8	204.4	203.7	204.4
62.5°	219.3	213.9	209.2	203.0	196.9	192.8	189.4	186.8	185.4	184.7	185.4
65°	196.2	191.5	186.8	181.3	176.6	172.4	169.1	166.4	165.7	165.0	165.0
67.5°	172.4	168.4	164.4	159.6	154.2	150.1	146.7	144.6	144.0	143.3	144.0
70°	148.0	144.6	140.6	136.5	132.4	129.0	127.0	125.0	124.3	123.6	123.6
72.5°	125.0	122.2	118.8	115.5	112.1	108.7	106.6	105.3	104.6	103.9	103.9
75°	101.9	99.1	97.1	94.4	91.0	88.9	86.9	85.5	84.9	84.9	84.9
77.5°	80.1	78.1	76.1	73.3	71.3	69.3	67.9	67.3	66.5	66.5	66.5
80°	59.1	57.7	56.4	55.0	53.0	50.9	50.3	49.6	48.9	48.9	48.9
82.5°	40.1	39.4	38.0	36.7	35.3	34.6	34.0	33.3	33.3	33.3	33.3
85°	23.1	22.4	21.7	21.0	20.4	20.4	19.7	19.0	18.4	18.4	18.4
87.5°	9.5	9.5	9.5	8.8	8.2	8.2	8.2	8.2	8.2	8.2	8.2
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: P735578

CATALOG NUMBER: 4APN6-19-B2750-W2D-CP250-2700K

**CANDELA DISTRIBUTION (continued):**

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	600.3	600.3	600.3	600.3	600.3	600.3	600.3	600.3	600.3	600.3	600.3
2.5°	590.1	591.5	592.9	594.9	596.9	598.9	598.3	597.6	600.3	603.7	604.4
5°	581.3	582.7	584.7	588.1	591.5	594.2	594.9	594.9	600.3	605.1	606.4
7.5°	570.5	572.5	575.2	578.5	583.3	587.4	589.5	592.1	597.6	603.7	606.4
10°	556.9	560.3	564.3	569.1	573.9	578.5	582.7	586.1	592.9	599.6	603.7
12.5°	544.6	548.0	552.1	557.5	563.7	569.7	573.9	578.5	586.7	594.9	599.6
15°	531.0	534.4	539.2	544.6	551.4	558.2	564.3	570.5	578.5	587.4	592.9
17.5°	516.1	519.5	524.2	531.0	538.5	546.0	552.8	559.5	569.1	578.5	584.7
20°	497.8	502.6	508.6	515.4	524.2	533.1	539.9	547.3	557.5	567.7	574.5
22.5°	480.1	484.8	491.6	499.8	509.3	518.8	527.0	535.1	546.0	556.2	563.7
25°	463.1	468.6	475.4	483.5	492.4	501.8	511.4	520.8	531.7	542.6	550.1
27.5°	446.1	450.9	457.7	465.8	476.0	485.6	495.0	504.6	516.1	527.6	535.8
30°	427.1	432.5	438.7	446.8	457.7	468.6	478.1	488.2	499.8	511.4	519.5
32.5°	409.5	414.3	420.3	428.5	439.3	450.2	460.4	471.3	482.2	493.7	501.8
35°	391.9	396.6	402.7	410.9	421.7	432.5	442.7	452.9	463.8	474.7	482.8
37.5°	374.2	378.9	385.1	393.2	403.4	414.3	423.7	433.9	444.8	455.7	463.1
40°	355.8	360.6	365.4	373.5	383.7	394.5	404.1	414.3	425.1	435.9	443.5
42.5°	337.5	342.2	348.4	356.5	366.0	375.5	385.1	394.5	404.7	414.9	422.4
45°	319.2	323.2	329.4	336.8	346.4	355.2	364.7	373.5	383.7	393.2	400.7
47.5°	300.2	304.2	309.0	316.4	326.0	335.4	345.0	353.8	362.6	372.1	378.9
50°	281.8	285.9	291.3	298.1	307.0	315.8	324.0	332.0	340.9	349.7	355.8
52.5°	262.8	266.9	271.6	278.4	285.9	294.0	301.5	309.6	317.8	326.0	332.0
55°	243.8	246.5	250.5	256.7	264.9	273.0	280.5	287.9	295.4	302.2	308.3
57.5°	224.8	228.2	232.9	238.3	245.1	251.9	258.7	265.5	272.3	279.1	284.5
60°	205.8	208.5	211.9	216.6	223.4	229.5	236.3	242.5	248.5	254.7	259.4
62.5°	186.0	188.8	192.2	196.9	202.4	207.8	213.9	219.3	224.8	230.2	234.9
65°	165.7	168.4	171.8	175.8	180.6	185.4	190.8	196.2	200.3	204.4	209.2
67.5°	144.6	147.4	150.8	154.2	158.2	163.0	167.8	172.4	176.6	180.6	184.0
70°	124.3	126.3	129.7	132.4	135.8	139.2	143.3	147.4	150.1	153.4	157.6
72.5°	104.6	106.6	109.3	112.1	114.1	116.8	120.9	124.3	127.7	131.8	133.8
75°	85.5	86.9	88.9	91.0	93.1	95.1	97.8	100.5	103.2	105.3	108.0
77.5°	66.5	67.9	69.9	71.3	72.7	74.1	76.1	78.1	80.1	81.5	84.2
80°	48.9	50.3	51.6	53.0	54.3	55.7	56.4	57.1	59.7	61.8	63.1
82.5°	33.3	34.0	34.6	36.0	36.7	37.4	38.0	38.0	39.4	40.7	42.8
85°	19.0	19.7	20.4	20.4	20.4	20.4	21.0	21.7	22.4	23.8	25.1
87.5°	7.4	7.4	8.2	8.2	8.2	8.2	8.2	8.2	8.8	10.2	10.8
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: P735578

CATALOG NUMBER: 4APN6-19-B2750-W2D-CP250-2700K

**CANDELA DISTRIBUTION (continued):**

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	600.3	600.3	600.3	600.3	600.3	600.3	600.3	600.3	600.3	600.3	600.3
2.5°	603.7	604.4	605.7	606.4	607.1	607.1	607.8	608.5	607.1	605.7	605.1
5°	607.1	607.8	609.8	611.9	613.2	614.6	613.9	613.2	611.9	609.8	608.5
7.5°	607.8	609.8	611.9	614.6	616.6	619.3	618.0	616.6	613.9	611.2	609.1
10°	605.7	608.5	611.9	615.3	617.3	619.3	618.0	616.6	613.9	610.5	607.8
12.5°	603.0	606.4	610.5	613.9	615.9	618.6	616.6	614.6	611.2	607.8	604.4
15°	596.9	601.0	605.7	609.8	613.2	615.9	613.9	612.5	608.5	603.7	598.9
17.5°	589.5	594.9	599.6	604.4	607.1	609.8	608.5	607.1	602.3	596.9	591.5
20°	580.7	586.1	590.8	595.5	598.9	601.7	599.6	597.6	592.9	588.1	582.7
22.5°	569.7	575.2	580.7	585.3	588.7	591.5	588.7	585.3	580.7	575.9	570.5
25°	556.2	562.3	568.4	573.1	575.2	577.9	575.2	572.5	567.7	562.9	556.9
27.5°	542.6	548.7	554.8	559.5	561.6	564.3	561.6	558.9	554.1	549.4	543.3
30°	527.0	533.1	539.2	543.9	546.0	548.0	545.3	542.6	538.5	533.8	527.6
32.5°	509.3	515.4	520.2	524.9	527.6	530.4	527.6	525.6	520.8	514.8	508.6
35°	490.3	496.4	502.6	507.2	510.0	512.7	509.3	505.9	501.8	497.1	491.6
37.5°	469.2	476.0	482.8	488.2	490.3	493.0	490.3	486.9	482.8	478.1	472.0
40°	449.5	455.7	461.8	467.2	469.2	471.3	468.6	465.8	461.1	456.3	450.2
42.5°	429.2	435.3	440.7	445.5	447.5	450.2	447.5	444.1	440.7	436.7	431.2
45°	407.5	413.5	418.3	423.1	425.1	427.1	424.5	421.1	417.7	414.3	408.8
47.5°	385.1	390.5	395.3	400.0	401.3	403.4	400.7	398.7	395.3	391.9	387.1
50°	362.0	367.4	372.1	376.2	377.6	379.6	376.9	374.2	371.5	368.7	364.7
52.5°	338.2	343.0	347.7	351.8	353.1	354.5	351.8	349.0	346.4	343.6	339.6
55°	313.8	318.5	323.2	326.6	328.0	329.4	326.6	324.6	321.9	319.8	315.8
57.5°	289.3	294.0	298.1	301.5	302.9	304.2	301.5	298.8	296.8	294.7	291.3
60°	264.1	268.9	272.3	275.0	276.4	277.1	274.3	272.3	270.9	269.6	266.2
62.5°	239.7	243.1	246.5	248.5	249.9	250.5	248.5	247.2	245.9	244.5	241.7
65°	213.9	218.0	220.7	222.7	223.4	224.1	222.1	220.7	219.3	218.0	215.9
67.5°	188.1	191.5	193.6	195.6	196.2	196.2	196.2	195.6	194.2	192.2	190.2
70°	162.3	165.0	167.0	168.4	169.1	169.1	167.8	166.4	166.4	165.7	164.4
72.5°	135.8	137.8	139.2	140.6	140.6	140.6	140.6	141.2	140.6	139.2	137.2
75°	110.7	112.7	114.1	114.8	114.8	114.8	114.8	115.5	114.8	114.1	112.7
77.5°	86.9	88.3	88.9	89.7	89.7	89.7	90.3	91.0	90.3	89.7	88.9
80°	64.5	65.2	65.9	66.5	65.9	65.9	66.5	67.9	67.3	66.5	65.9
82.5°	44.1	44.8	45.5	45.5	46.2	46.9	46.9	46.9	46.9	46.2	45.5
85°	26.5	27.2	27.2	27.2	27.2	27.2	27.8	28.5	28.5	27.8	27.8
87.5°	12.2	12.9	12.2	11.6	10.8	10.8	12.2	13.6	13.6	12.9	12.9
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: P735578

CATALOG NUMBER: 4APN6-19-B2750-W2D-CP250-2700K

**CANDELA DISTRIBUTION (continued):**

	330°	340°	350°	360°
0°	600.3	600.3	600.3	600.3
2.5°	605.7	605.1	601.7	598.3
5°	607.8	605.7	601.0	596.3
7.5°	607.8	605.1	598.3	592.1
10°	604.4	600.3	592.9	585.3
12.5°	600.3	595.5	586.7	578.5
15°	594.2	588.7	579.3	569.7
17.5°	585.3	578.5	569.1	558.9
20°	576.5	569.1	557.5	546.7
22.5°	564.3	557.5	545.3	533.8
25°	550.7	543.3	531.0	518.8
27.5°	536.5	527.6	515.4	503.2
30°	520.2	511.4	499.2	486.9
32.5°	502.6	494.4	482.2	469.2
35°	484.8	476.0	463.8	450.9
37.5°	465.2	457.0	444.8	432.5
40°	444.1	435.9	423.7	411.5
42.5°	424.5	416.9	404.7	393.2
45°	402.7	395.3	383.7	372.8
47.5°	380.3	372.8	362.0	351.1
50°	358.6	351.1	340.9	330.7
52.5°	334.1	328.0	318.5	309.0
55°	310.4	304.2	294.7	285.9
57.5°	286.6	281.1	272.3	264.1
60°	261.5	256.0	249.3	241.7
62.5°	237.7	232.9	226.1	219.3
65°	212.5	208.5	202.4	196.2
67.5°	186.8	183.4	177.9	172.4
70°	161.0	156.8	152.8	148.0
72.5°	135.2	133.1	129.0	125.0
75°	110.7	108.7	105.3	101.9
77.5°	87.6	85.5	82.9	80.1
80°	64.5	63.1	61.1	59.1
82.5°	44.8	43.5	42.1	40.1
85°	27.2	25.8	24.4	23.1
87.5°	12.2	11.6	10.2	9.5
90°	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180°    - - 45°-225°    - - - - 90°-270°    - · - · 135°-315°















(END OF REPORT)