

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: P735603

Luminaire Tested: **4APN6-29-B2750-W2D-CP125-2700K**

Issue Date: 1/5/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P735603  
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: 4APN6-29-B2750-W2D-CP125-2700K  
Description: 4FT 2900 AMBIENT LUMEN OUTPUT APN WITH BIO UP LEDS AT 2700K CCT, AND CP125 LENS  
  
Light Source: -  
Ballast/Driver: -

**Summary**

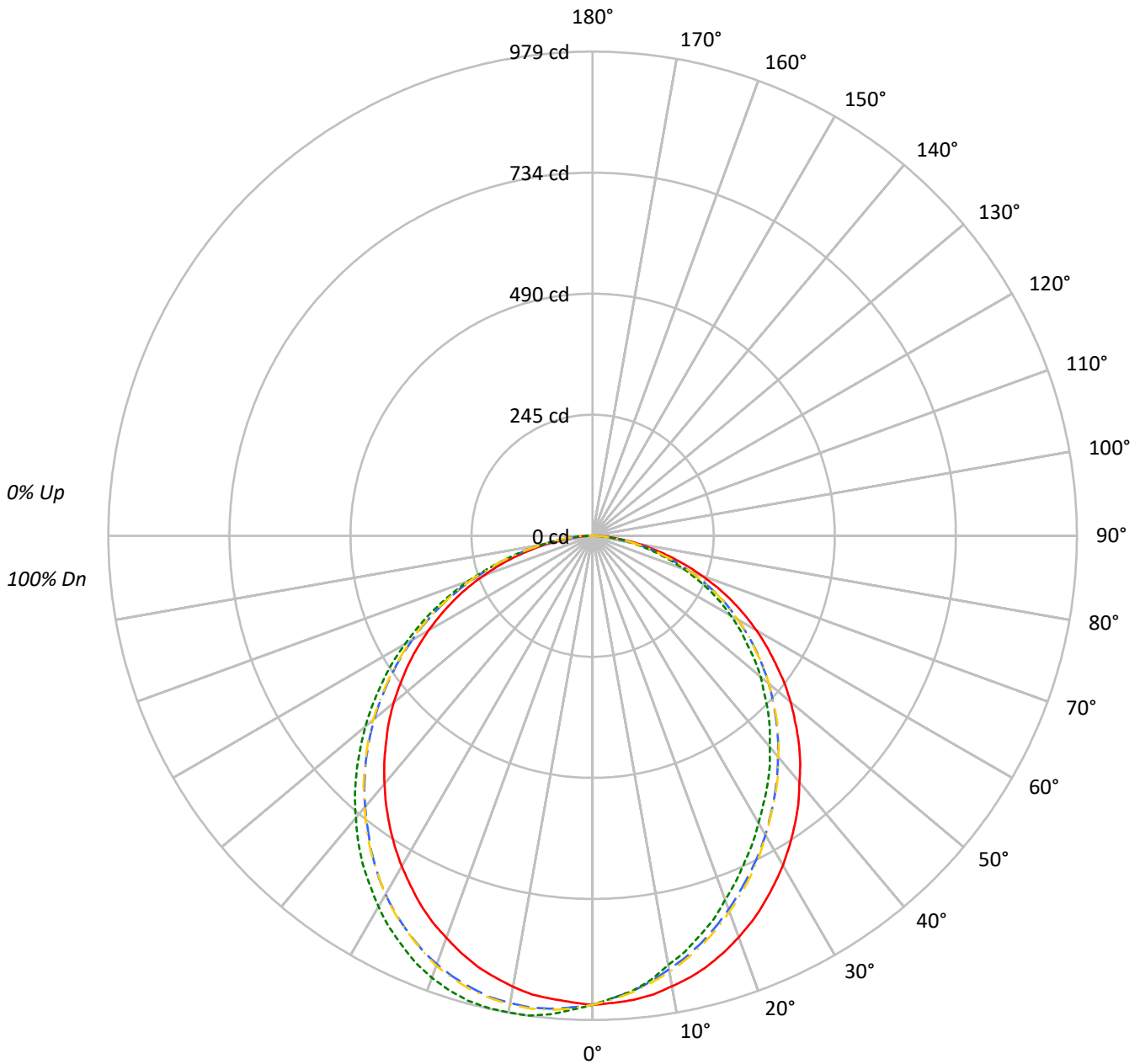
Lumens per Lamp: N/A  
Luminaire Lumens: 2544.0 lumens  
Efficiency: N/A  
Efficacy: 89.3 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 28.5  
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									
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°	8751	8751	8751	8751
5°	8726	8557	8706	8995
10°	8665	8254	8676	9168
15°	8599	7995	8610	9296
20°	8481	7692	8492	9334
25°	8346	7406	8378	9296
30°	8196	7145	8219	9225
35°	8025	6937	8061	9125
40°	7831	6707	7884	8969
45°	7686	6540	7701	8806
50°	7501	6361	7531	8609
55°	7266	6129	7317	8372
60°	7049	5940	7069	8078
65°	6768	5691	6768	7730
70°	6310	5268	6283	7205
75°	5739	4780	5661	6466
80°	4962	4107	4792	5531
85°	3864	3070	3642	4541



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.6	3.5
10°-20°	254.4	10.0
20°-30°	378.2	14.9
30°-40°	445.7	17.5
40°-50°	453.8	17.8
50°-60°	404.3	15.9
60°-70°	304.6	12.0
70°-80°	169.4	6.7
80°-90°	44.0	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°	722.2	28.4
0°-40°	1167.9	45.9
0°-60°	2026.0	79.6
0°-90°	2544.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2544.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	948	948	948	948	948	
5°	942	924	940	971	942	89
15°	900	837	901	973	900	254
25°	820	728	823	913	820	378
35°	712	616	716	810	712	446
45°	589	501	590	675	589	454
55°	452	381	455	520	452	405
65°	310	261	310	354	310	306
75°	161	134	159	181	161	171
85°	36	29	34	43	36	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	948.5	948.5	948.5	948.5	948.5	948.5	948.5	948.5	948.5	948.5	948.5
2.5°	945.3	945.3	946.4	942.2	936.8	934.6	933.6	932.4	934.6	935.6	934.6
5°	942.2	940.0	937.8	932.4	926.1	921.7	919.5	918.5	920.7	923.9	920.7
7.5°	935.6	931.4	927.1	919.5	912.1	905.6	902.4	900.3	902.4	905.6	903.4
10°	924.9	919.5	913.2	904.6	893.9	886.3	883.1	879.9	881.0	881.0	881.0
12.5°	914.2	906.8	899.2	888.5	876.6	868.1	862.7	858.5	860.5	861.7	861.7
15°	900.3	890.7	879.9	868.1	856.3	846.6	840.2	835.9	837.0	837.0	838.0
17.5°	883.1	872.4	861.7	847.7	833.7	823.0	815.6	810.2	812.2	813.4	814.4
20°	863.8	852.0	840.2	825.1	810.2	798.3	790.8	784.4	783.4	783.4	784.4
22.5°	843.4	830.5	816.6	800.5	784.4	771.5	763.9	757.6	756.5	756.5	757.6
25°	819.8	805.8	791.9	775.8	758.6	745.8	736.1	729.7	728.6	727.5	729.7
27.5°	795.1	781.2	767.3	751.2	732.9	720.0	710.3	703.9	701.7	700.7	702.9
30°	769.3	753.2	738.3	721.0	704.9	692.1	682.4	674.9	672.9	670.7	672.9
32.5°	741.5	725.4	709.3	692.1	676.1	663.2	653.4	646.0	643.9	642.7	644.9
35°	712.5	696.4	681.4	664.2	648.1	635.3	625.6	619.2	617.0	615.9	617.0
37.5°	683.5	667.5	652.4	635.3	619.2	606.3	596.6	590.2	589.1	588.0	589.1
40°	650.2	636.3	621.2	605.2	589.1	576.3	568.7	561.2	559.0	556.9	560.2
42.5°	621.2	607.3	592.4	577.3	561.2	548.3	539.7	533.4	531.2	530.0	531.2
45°	589.1	574.1	559.0	545.1	530.0	518.3	509.7	503.2	502.2	501.2	502.2
47.5°	554.8	541.9	529.0	515.1	500.0	488.3	480.7	474.3	472.2	470.0	472.2
50°	522.6	509.7	496.8	483.9	470.0	459.3	451.7	445.3	444.2	443.2	444.2
52.5°	488.3	475.4	463.6	450.7	438.8	428.1	420.7	415.3	414.2	413.1	414.2
55°	451.7	441.0	430.3	419.5	407.8	398.1	391.7	385.2	383.1	381.0	383.1
57.5°	417.4	407.8	397.0	386.3	375.6	367.0	360.5	355.1	354.1	353.0	354.1
60°	382.0	373.4	363.7	354.1	343.4	334.8	329.5	325.1	323.0	321.9	323.0
62.5°	346.6	338.0	330.5	320.8	311.2	304.7	299.3	295.1	292.9	291.9	292.9
65°	310.0	302.6	295.1	286.5	279.0	272.5	267.1	262.9	261.8	260.7	260.7
67.5°	272.5	266.1	259.7	252.2	243.6	237.1	231.7	228.5	227.5	226.4	227.5
70°	233.9	228.5	222.2	215.6	209.3	203.9	200.7	197.5	196.4	195.3	195.3
72.5°	197.5	193.2	187.8	182.4	177.1	171.7	168.5	166.3	165.3	164.2	164.2
75°	161.0	156.6	153.4	149.2	143.8	140.5	137.3	135.2	134.1	134.1	134.1
77.5°	126.6	123.4	120.2	115.9	112.7	109.5	107.3	106.3	105.1	105.1	105.1
80°	93.4	91.2	89.0	86.9	83.7	80.5	79.5	78.3	77.3	77.3	77.3
82.5°	63.4	62.2	60.0	58.0	55.8	54.7	53.7	52.6	52.6	52.6	52.6
85°	36.5	35.4	34.4	33.2	32.2	32.2	31.2	30.0	29.0	29.0	29.0
87.5°	15.1	15.1	15.1	13.9	12.9	12.9	12.9	12.9	12.9	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



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**CANDELA DISTRIBUTION (continued):**

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	948.5	948.5	948.5	948.5	948.5	948.5	948.5	948.5	948.5	948.5	948.5
2.5°	932.4	934.6	936.8	940.0	943.2	946.4	945.3	944.3	948.5	953.9	955.1
5°	918.5	920.7	923.9	929.3	934.6	939.0	940.0	940.0	948.5	956.1	958.3
7.5°	901.4	904.6	908.8	914.2	921.7	928.2	931.4	935.6	944.3	953.9	958.3
10°	879.9	885.3	891.7	899.2	906.8	914.2	920.7	926.1	936.8	947.5	953.9
12.5°	860.5	865.9	872.4	881.0	890.7	900.3	906.8	914.2	927.1	940.0	947.5
15°	839.1	844.4	852.0	860.5	871.3	882.0	891.7	901.4	914.2	928.2	936.8
17.5°	815.6	820.9	828.3	839.1	850.9	862.7	873.4	884.2	899.2	914.2	923.9
20°	786.6	794.1	803.7	814.4	828.3	842.4	853.1	864.9	881.0	897.1	907.8
22.5°	758.6	766.1	776.8	789.8	804.8	819.8	832.7	845.6	862.7	878.8	890.7
25°	731.8	740.4	751.2	763.9	778.0	792.9	808.0	823.0	840.2	857.3	869.2
27.5°	704.9	712.5	723.2	736.1	752.2	767.3	782.2	797.3	815.6	833.7	846.6
30°	674.9	683.5	693.2	706.1	723.2	740.4	755.4	771.5	789.8	808.0	820.9
32.5°	647.1	654.6	664.2	677.1	694.2	711.4	727.5	744.7	761.9	780.0	792.9
35°	619.2	626.6	636.3	649.2	666.3	683.5	699.6	715.7	732.9	750.0	762.9
37.5°	591.2	598.8	608.5	621.2	637.3	654.6	669.5	685.6	702.9	720.0	731.8
40°	562.2	569.8	577.3	590.2	606.3	623.4	638.5	654.6	671.7	688.8	700.7
42.5°	533.4	540.8	550.5	563.4	578.3	593.4	608.5	623.4	639.5	655.6	667.5
45°	504.4	510.7	520.5	532.2	547.3	561.2	576.3	590.2	606.3	621.2	633.1
47.5°	474.3	480.7	488.3	500.0	515.1	530.0	545.1	559.0	573.0	588.0	598.8
50°	445.3	451.7	460.3	471.0	485.1	499.0	511.9	524.7	538.7	552.6	562.2
52.5°	415.3	421.7	429.2	440.0	451.7	464.6	476.4	489.3	502.2	515.1	524.7
55°	385.2	389.5	395.9	405.6	418.5	431.4	443.2	454.9	466.8	477.5	487.1
57.5°	355.1	360.5	368.0	376.6	387.3	398.1	408.8	419.5	430.3	441.0	449.6
60°	325.1	329.5	334.8	342.2	353.0	362.7	373.4	383.1	392.7	402.4	409.9
62.5°	294.0	298.3	303.7	311.2	319.8	328.3	338.0	346.6	355.1	363.7	371.2
65°	261.8	266.1	271.5	277.9	285.4	292.9	301.5	310.0	316.6	323.0	330.5
67.5°	228.5	232.9	238.3	243.6	250.0	257.5	265.1	272.5	279.0	285.4	290.8
70°	196.4	199.5	204.9	209.3	214.6	220.0	226.4	232.9	237.1	242.5	249.0
72.5°	165.3	168.5	172.7	177.1	180.3	184.6	191.0	196.4	201.7	208.2	211.4
75°	135.2	137.3	140.5	143.8	147.0	150.2	154.6	158.8	163.1	166.3	170.7
77.5°	105.1	107.3	110.5	112.7	114.8	117.0	120.2	123.4	126.6	128.8	133.1
80°	77.3	79.5	81.5	83.7	85.8	88.0	89.0	90.2	94.4	97.6	99.8
82.5°	52.6	53.7	54.7	56.8	58.0	59.0	60.0	60.0	62.2	64.4	67.6
85°	30.0	31.2	32.2	32.2	32.2	32.2	33.2	34.4	35.4	37.6	39.7
87.5°	11.8	11.8	12.9	12.9	12.9	12.9	12.9	12.9	13.9	16.1	17.1
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):**

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	948.5	948.5	948.5	948.5	948.5	948.5	948.5	948.5	948.5	948.5	948.5
2.5°	953.9	955.1	957.1	958.3	959.3	959.3	960.4	961.4	959.3	957.1	956.1
5°	959.3	960.4	963.6	966.8	969.0	971.2	970.0	969.0	966.8	963.6	961.4
7.5°	960.4	963.6	966.8	971.2	974.3	978.6	976.5	974.3	970.0	965.8	962.5
10°	957.1	961.4	966.8	972.2	975.4	978.6	976.5	974.3	970.0	964.6	960.4
12.5°	952.9	958.3	964.6	970.0	973.2	977.5	974.3	971.2	965.8	960.4	955.1
15°	943.2	949.7	957.1	963.6	969.0	973.2	970.0	967.8	961.4	953.9	946.4
17.5°	931.4	940.0	947.5	955.1	959.3	963.6	961.4	959.3	951.7	943.2	934.6
20°	917.5	926.1	933.6	941.0	946.4	950.7	947.5	944.3	936.8	929.3	920.7
22.5°	900.3	908.8	917.5	924.9	930.3	934.6	930.3	924.9	917.5	910.0	901.4
25°	878.8	888.5	898.1	905.6	908.8	913.2	908.8	904.6	897.1	889.5	879.9
27.5°	857.3	867.0	876.6	884.2	887.4	891.7	887.4	883.1	875.6	868.1	858.5
30°	832.7	842.4	852.0	859.5	862.7	865.9	861.7	857.3	850.9	843.4	833.7
32.5°	804.8	814.4	821.9	829.5	833.7	838.0	833.7	830.5	823.0	813.4	803.7
35°	774.7	784.4	794.1	801.5	805.8	810.2	804.8	799.5	792.9	785.4	776.8
37.5°	741.5	752.2	762.9	771.5	774.7	779.0	774.7	769.3	762.9	755.4	745.8
40°	710.3	720.0	729.7	738.3	741.5	744.7	740.4	736.1	728.6	721.0	711.4
42.5°	678.2	687.8	696.4	703.9	707.1	711.4	707.1	701.7	696.4	690.0	681.4
45°	643.9	653.4	661.0	668.5	671.7	674.9	670.7	665.3	660.0	654.6	646.0
47.5°	608.5	617.0	624.6	632.0	634.2	637.3	633.1	629.9	624.6	619.2	611.7
50°	571.9	580.5	588.0	594.4	596.6	599.8	595.6	591.2	587.0	582.7	576.3
52.5°	534.4	541.9	549.5	555.8	558.0	560.2	555.8	551.5	547.3	542.9	536.5
55°	495.8	503.2	510.7	516.1	518.3	520.5	516.1	512.9	508.6	505.4	499.0
57.5°	457.1	464.6	471.0	476.4	478.6	480.7	476.4	472.2	469.0	465.6	460.3
60°	417.4	424.9	430.3	434.6	436.8	437.8	433.5	430.3	428.1	426.0	420.7
62.5°	378.8	384.1	389.5	392.7	394.9	395.9	392.7	390.5	388.5	386.3	382.0
65°	338.0	344.4	348.8	352.0	353.0	354.1	350.9	348.8	346.6	344.4	341.2
67.5°	297.3	302.6	305.8	309.0	310.0	310.0	310.0	309.0	306.9	303.7	300.5
70°	256.4	260.7	263.9	266.1	267.1	267.1	265.1	262.9	262.9	261.8	259.7
72.5°	214.6	217.8	220.0	222.2	222.2	222.2	222.2	223.2	222.2	220.0	216.8
75°	174.9	178.1	180.3	181.4	181.4	181.4	181.4	182.4	181.4	180.3	178.1
77.5°	137.3	139.5	140.5	141.7	141.7	141.7	142.7	143.8	142.7	141.7	140.5
80°	101.9	103.0	104.1	105.1	104.1	104.1	105.1	107.3	106.3	105.1	104.1
82.5°	69.8	70.8	71.9	71.9	72.9	74.1	74.1	74.1	74.1	72.9	71.9
85°	41.9	42.9	42.9	42.9	42.9	42.9	43.9	45.1	45.1	43.9	43.9
87.5°	19.3	20.4	19.3	18.3	17.1	17.1	19.3	21.5	21.5	20.4	20.4
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: P735603

CATALOG NUMBER: 4APN6-29-B2750-W2D-CP125-2700K

**CANDELA DISTRIBUTION (continued):**

	330°	340°	350°	360°
0°	948.5	948.5	948.5	948.5
2.5°	957.1	956.1	950.7	945.3
5°	960.4	957.1	949.7	942.2
7.5°	960.4	956.1	945.3	935.6
10°	955.1	948.5	936.8	924.9
12.5°	948.5	941.0	927.1	914.2
15°	939.0	930.3	915.3	900.3
17.5°	924.9	914.2	899.2	883.1
20°	911.0	899.2	881.0	863.8
22.5°	891.7	881.0	861.7	843.4
25°	870.2	858.5	839.1	819.8
27.5°	847.7	833.7	814.4	795.1
30°	821.9	808.0	788.7	769.3
32.5°	794.1	781.2	761.9	741.5
35°	766.1	752.2	732.9	712.5
37.5°	735.1	722.2	702.9	683.5
40°	701.7	688.8	669.5	650.2
42.5°	670.7	658.8	639.5	621.2
45°	636.3	624.6	606.3	589.1
47.5°	600.9	589.1	571.9	554.8
50°	566.6	554.8	538.7	522.6
52.5°	528.0	518.3	503.2	488.3
55°	490.4	480.7	465.6	451.7
57.5°	452.9	444.2	430.3	417.4
60°	413.1	404.6	393.9	382.0
62.5°	375.6	368.0	357.3	346.6
65°	335.9	329.5	319.8	310.0
67.5°	295.1	289.7	281.2	272.5
70°	254.4	247.8	241.4	233.9
72.5°	213.6	210.3	203.9	197.5
75°	174.9	171.7	166.3	161.0
77.5°	138.5	135.2	130.9	126.6
80°	101.9	99.8	96.6	93.4
82.5°	70.8	68.7	66.6	63.4
85°	42.9	40.8	38.6	36.5
87.5°	19.3	18.3	16.1	15.1
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)