

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: P308291

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-HRP-CA08-W2A-U-5500K**

Issue Date: 3/3/2020

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: P308291
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-44HE-UNV-L82765-HRP-CA08-W2A-U-5500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 3000K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3214.0 lumens
Efficiency: N/A
Efficacy: 84.1 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

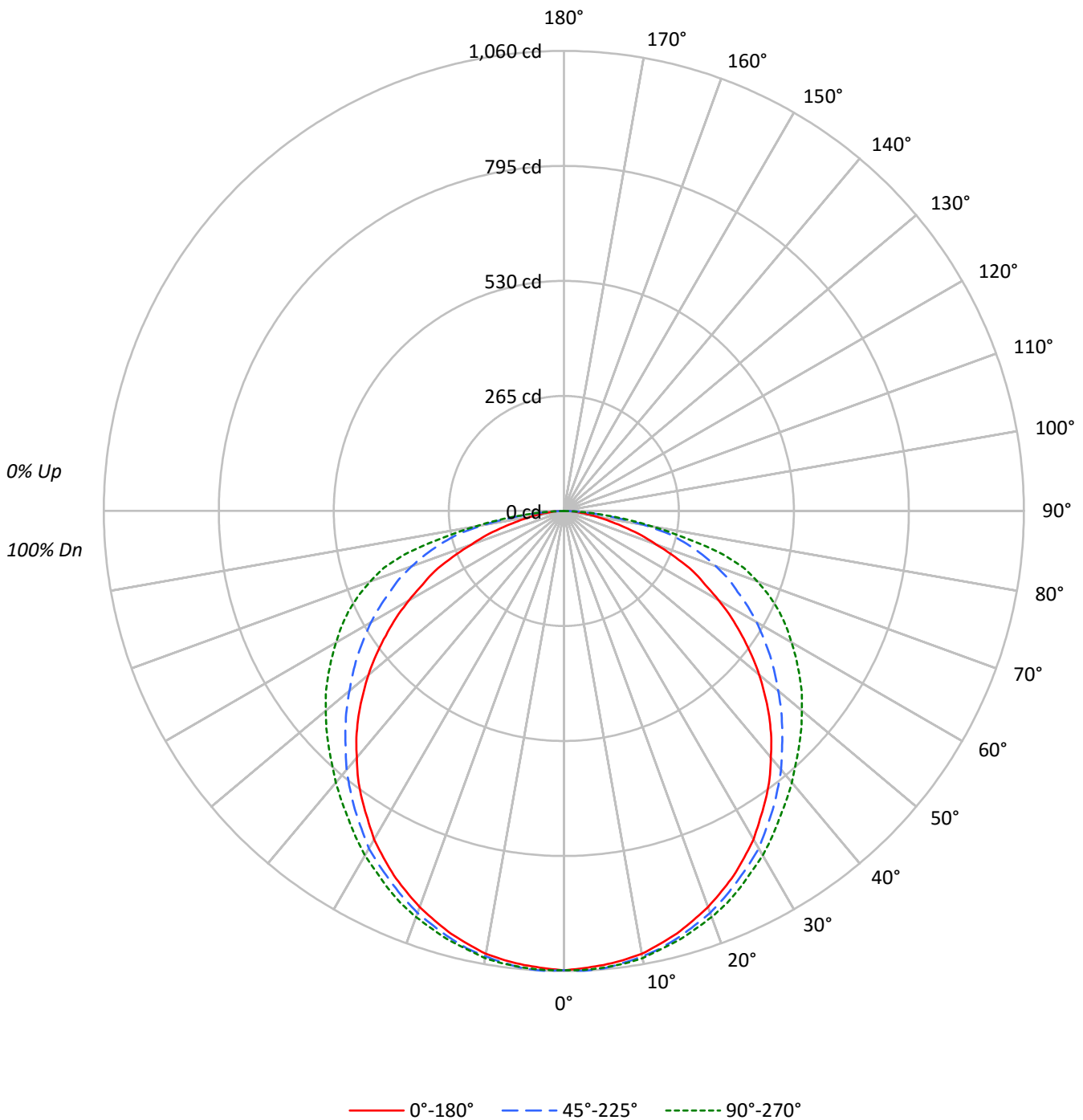
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2848	2848	2848
5°	2837	2859	2853
10°	2831	2848	2859
15°	2807	2835	2852
20°	2781	2822	2851
25°	2751	2799	2847
30°	2715	2791	2848
35°	2664	2757	2844
40°	2607	2735	2870
45°	2546	2708	2917
50°	2462	2699	2996
55°	2350	2721	3111
60°	2215	2760	3263
65°	2091	2814	3486
70°	1787	2936	3733
75°	1496	3057	3879
80°	1226	2954	3236
85°	1065	2192	2377



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.3	3.1
10°-20°	286.9	8.9
20°-30°	434.8	13.5
30°-40°	525.1	16.3
40°-50°	551.7	17.2
50°-60°	519.1	16.2
60°-70°	432.8	13.5
70°-80°	286.8	8.9
80°-90°	76.4	2.4
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°	822.1	25.6
0°-40°	1347.1	41.9
0°-60°	2418.0	75.2
0°-90°	3214.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3214.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1058	1058	1058	1058	1058	
5°	1050	1052	1058	1058	1056	100
15°	1008	1012	1018	1022	1024	284
25°	926	933	943	955	959	427
35°	811	819	839	858	866	507
45°	669	679	712	748	766	515
55°	501	523	580	639	663	448
65°	328	357	442	515	547	320
75°	144	201	294	355	373	156
85°	34	53	71	77	77	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1058.3	1058.3	1058.3	1058.3	1058.3
2.5°	1054.3	1056.3	1060.4	1060.4	1058.3
5°	1050.2	1052.3	1058.3	1058.3	1056.3
7.5°	1044.1	1046.2	1050.2	1054.3	1052.3
10°	1036.0	1038.1	1042.1	1046.2	1046.2
12.5°	1021.8	1023.9	1032.0	1034.0	1034.0
15°	1007.6	1011.7	1017.8	1021.8	1023.9
17.5°	989.4	993.5	1001.6	1009.7	1009.7
20°	971.2	975.2	985.3	993.5	995.5
22.5°	948.9	954.9	965.1	975.2	979.3
25°	926.5	932.6	942.8	954.9	959.0
27.5°	900.2	906.3	920.5	934.7	936.7
30°	873.8	879.9	898.2	910.3	916.4
32.5°	841.4	849.5	867.8	886.0	892.1
35°	811.0	819.1	839.4	857.6	865.7
37.5°	778.5	786.7	809.0	831.3	841.4
40°	742.1	752.2	778.5	802.9	817.1
42.5°	707.6	717.7	744.1	776.5	790.7
45°	669.1	679.2	711.6	748.1	766.4
47.5°	628.5	640.7	679.2	723.8	742.1
50°	588.0	602.2	644.7	695.4	715.7
52.5°	545.4	563.6	612.3	667.0	691.4
55°	500.8	523.1	579.9	638.6	663.0
57.5°	458.2	478.5	545.4	608.2	634.6
60°	411.6	437.9	512.9	577.8	606.2
62.5°	367.0	395.4	478.5	547.4	577.8
65°	328.4	356.8	442.0	515.0	547.4
67.5°	277.8	316.3	411.6	480.5	512.9
70°	227.1	279.8	373.1	444.0	474.4
72.5°	188.6	239.2	334.5	405.5	433.9
75°	143.9	200.7	294.0	354.8	373.1
77.5°	107.5	166.3	251.4	281.8	283.8
80°	79.1	127.7	190.6	200.7	208.8
82.5°	54.7	89.2	123.7	135.8	139.9
85°	34.5	52.7	71.0	77.0	77.0
87.5°	18.2	20.3	24.3	24.3	24.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)