

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: P308293

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-HRP-CA08-W2A-U-6500K**

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: P308293
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-6500K
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: 3231.0 lumens
Efficiency: N/A
Efficacy: 83.1 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

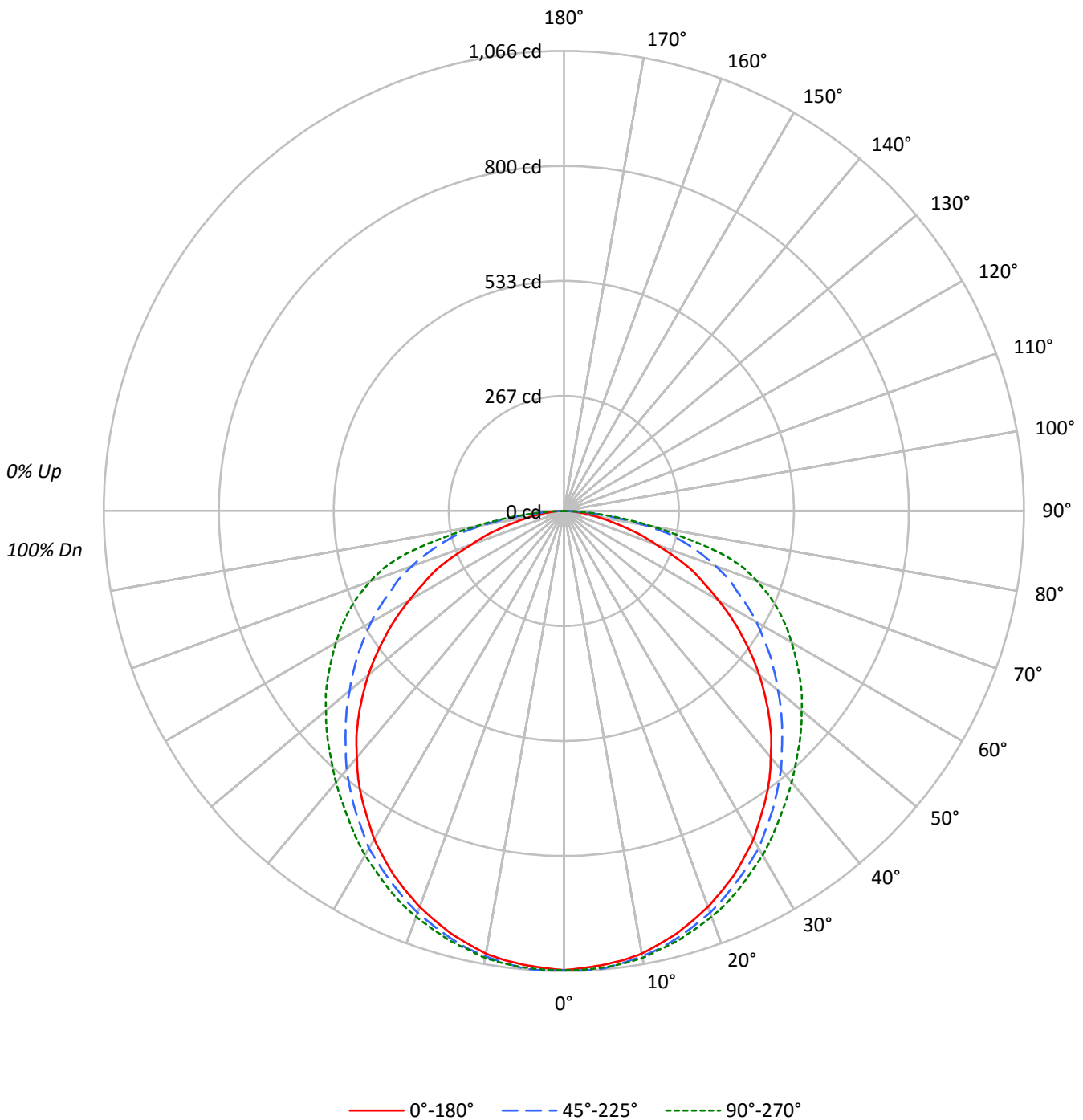
Input Watts (W): 38.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2863	2863	2863
5°	2852	2874	2868
10°	2846	2863	2874
15°	2822	2851	2868
20°	2796	2837	2866
25°	2766	2814	2863
30°	2730	2806	2863
35°	2678	2772	2859
40°	2621	2749	2885
45°	2560	2723	2932
50°	2475	2713	3012
55°	2362	2735	3127
60°	2227	2775	3280
65°	2103	2829	3504
70°	1796	2950	3752
75°	1504	3072	3899
80°	1232	2969	3253
85°	1068	2201	2393



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.8	3.1
10°-20°	288.4	8.9
20°-30°	437.1	13.5
30°-40°	527.8	16.3
40°-50°	554.6	17.2
50°-60°	521.9	16.2
60°-70°	435.1	13.5
70°-80°	288.3	8.9
80°-90°	76.8	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°	826.4	25.6
0°-40°	1354.3	41.9
0°-60°	2430.7	75.2
0°-90°	3231.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3231.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1064	1064	1064	1064	1064	
5°	1056	1058	1064	1064	1062	100
15°	1013	1017	1023	1027	1029	286
25°	932	938	948	960	964	429
35°	815	823	844	862	870	510
45°	673	683	715	752	770	518
55°	503	526	583	642	666	450
65°	330	359	444	518	550	321
75°	145	202	296	357	375	157
85°	35	53	71	78	78	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1063.9	1063.9	1063.9	1063.9	1063.9
2.5°	1059.9	1061.9	1066.0	1066.0	1063.9
5°	1055.8	1057.8	1063.9	1063.9	1061.9
7.5°	1049.7	1051.7	1055.8	1059.9	1057.8
10°	1041.5	1043.6	1047.6	1051.7	1051.7
12.5°	1027.2	1029.3	1037.4	1039.5	1039.5
15°	1013.0	1017.1	1023.2	1027.2	1029.3
17.5°	994.6	998.7	1006.9	1015.0	1015.0
20°	976.3	980.4	990.6	998.7	1000.7
22.5°	953.9	960.0	970.2	980.4	984.4
25°	931.5	937.6	947.8	960.0	964.1
27.5°	905.0	911.1	925.3	939.6	941.6
30°	878.5	884.6	902.9	915.1	921.3
32.5°	845.8	854.0	872.3	890.7	896.8
35°	815.3	823.4	843.8	862.2	870.3
37.5°	782.7	790.8	813.2	835.7	845.8
40°	746.0	756.2	782.7	807.1	821.4
42.5°	711.3	721.5	748.0	780.6	794.9
45°	672.6	682.8	715.4	752.1	770.4
47.5°	631.8	644.1	682.8	727.6	746.0
50°	591.1	605.3	648.1	699.1	719.5
52.5°	548.3	566.6	615.5	670.6	695.0
55°	503.4	525.9	582.9	642.0	666.5
57.5°	460.6	481.0	548.3	611.5	638.0
60°	413.8	440.2	515.7	580.9	609.4
62.5°	368.9	397.4	481.0	550.3	580.9
65°	330.2	358.7	444.3	517.7	550.3
67.5°	279.2	318.0	413.8	483.0	515.7
70°	228.3	281.3	375.0	446.4	476.9
72.5°	189.6	240.5	336.3	407.6	436.2
75°	144.7	201.8	295.5	356.7	375.0
77.5°	108.0	167.1	252.7	283.3	285.3
80°	79.5	128.4	191.6	201.8	209.9
82.5°	55.0	89.7	124.3	136.6	140.6
85°	34.6	53.0	71.3	77.5	77.5
87.5°	18.3	20.4	24.5	24.5	24.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)