

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: P308314

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-HRP-CP187-W2A-U-3500K**

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: P308314
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-CP187-W2A-U-3500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187" POLYCARB 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: 2825.0 lumens
Efficiency: N/A
Efficacy: 75.5 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

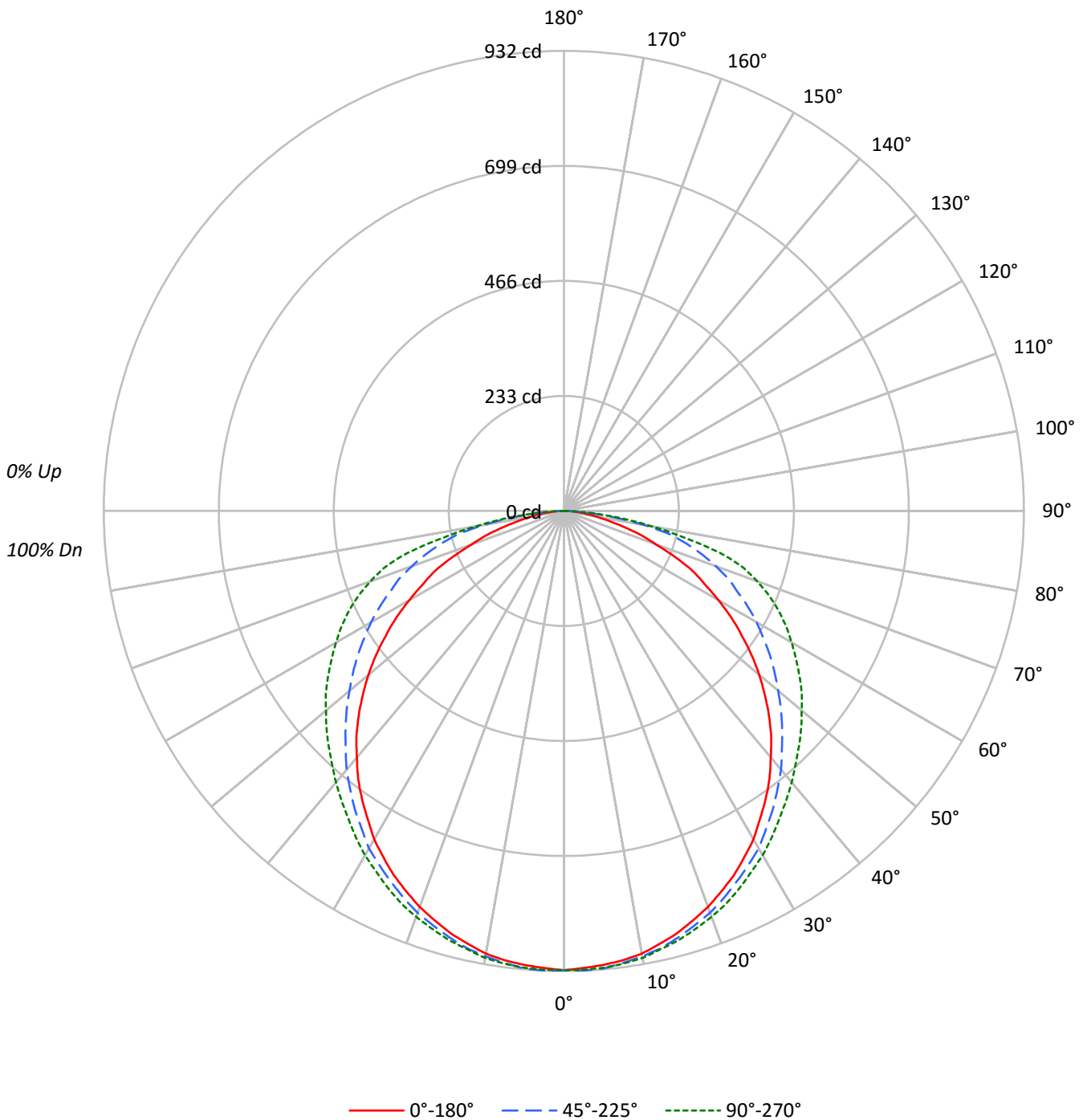
Input Watts (W): 37.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2503	2503	2503
5°	2494	2513	2508
10°	2488	2503	2513
15°	2467	2492	2507
20°	2444	2480	2506
25°	2418	2461	2503
30°	2387	2453	2503
35°	2342	2424	2500
40°	2291	2404	2523
45°	2238	2380	2563
50°	2164	2372	2634
55°	2065	2391	2734
60°	1947	2427	2868
65°	1838	2474	3064
70°	1570	2580	3281
75°	1315	2687	3409
80°	1077	2596	2845
85°	936	1927	2090



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.2	3.1
10°-20°	252.2	8.9
20°-30°	382.2	13.5
30°-40°	461.5	16.3
40°-50°	484.9	17.2
50°-60°	456.3	16.2
60°-70°	380.5	13.5
70°-80°	252.1	8.9
80°-90°	67.2	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°	722.6	25.6
0°-40°	1184.1	41.9
0°-60°	2125.3	75.2
0°-90°	2825.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2825.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	930	930	930	930	930	
5°	923	925	930	930	928	88
15°	886	889	895	898	900	250
25°	814	820	829	839	843	375
35°	713	720	738	754	761	446
45°	588	597	626	658	674	453
55°	440	460	510	561	583	394
65°	289	314	388	453	481	281
75°	126	176	258	312	328	137
85°	30	46	62	68	68	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	930.2	930.2	930.2	930.2	930.2
2.5°	926.7	928.5	932.0	932.0	930.2
5°	923.1	924.9	930.2	930.2	928.5
7.5°	917.8	919.5	923.1	926.7	924.9
10°	910.6	912.4	916.0	919.5	919.5
12.5°	898.2	899.9	907.1	908.9	908.9
15°	885.7	889.3	894.6	898.2	899.9
17.5°	869.7	873.2	880.3	887.5	887.5
20°	853.6	857.2	866.1	873.2	875.0
22.5°	834.0	839.4	848.3	857.2	860.7
25°	814.4	819.8	828.7	839.4	842.9
27.5°	791.2	796.6	809.1	821.5	823.3
30°	768.1	773.4	789.5	800.1	805.5
32.5°	739.6	746.7	762.7	778.8	784.1
35°	712.8	720.0	737.8	753.8	760.9
37.5°	684.3	691.4	711.0	730.6	739.6
40°	652.2	661.1	684.3	705.7	718.2
42.5°	621.9	630.9	654.0	682.5	695.0
45°	588.1	597.0	625.5	657.6	673.6
47.5°	552.4	563.1	597.0	636.2	652.2
50°	516.8	529.3	566.7	611.3	629.1
52.5°	479.4	495.4	538.2	586.3	607.7
55°	440.2	459.8	509.7	561.4	582.7
57.5°	402.7	420.6	479.4	534.6	557.8
60°	361.8	384.9	450.9	507.9	532.8
62.5°	322.6	347.5	420.6	481.2	507.9
65°	288.7	313.6	388.5	452.6	481.2
67.5°	244.1	278.0	361.8	422.4	450.9
70°	199.6	245.9	327.9	390.3	417.0
72.5°	165.7	210.3	294.0	356.4	381.4
75°	126.5	176.4	258.4	311.9	327.9
77.5°	94.4	146.1	221.0	247.7	249.5
80°	69.5	112.3	167.5	176.4	183.6
82.5°	48.1	78.4	108.7	119.4	123.0
85°	30.3	46.3	62.4	67.7	67.7
87.5°	16.0	17.8	21.4	21.4	21.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)