

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: P308318

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-HRP-CP187-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: P308318
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-5500K
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: 3008.0 lumens
Efficiency: N/A
Efficacy: 78.7 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

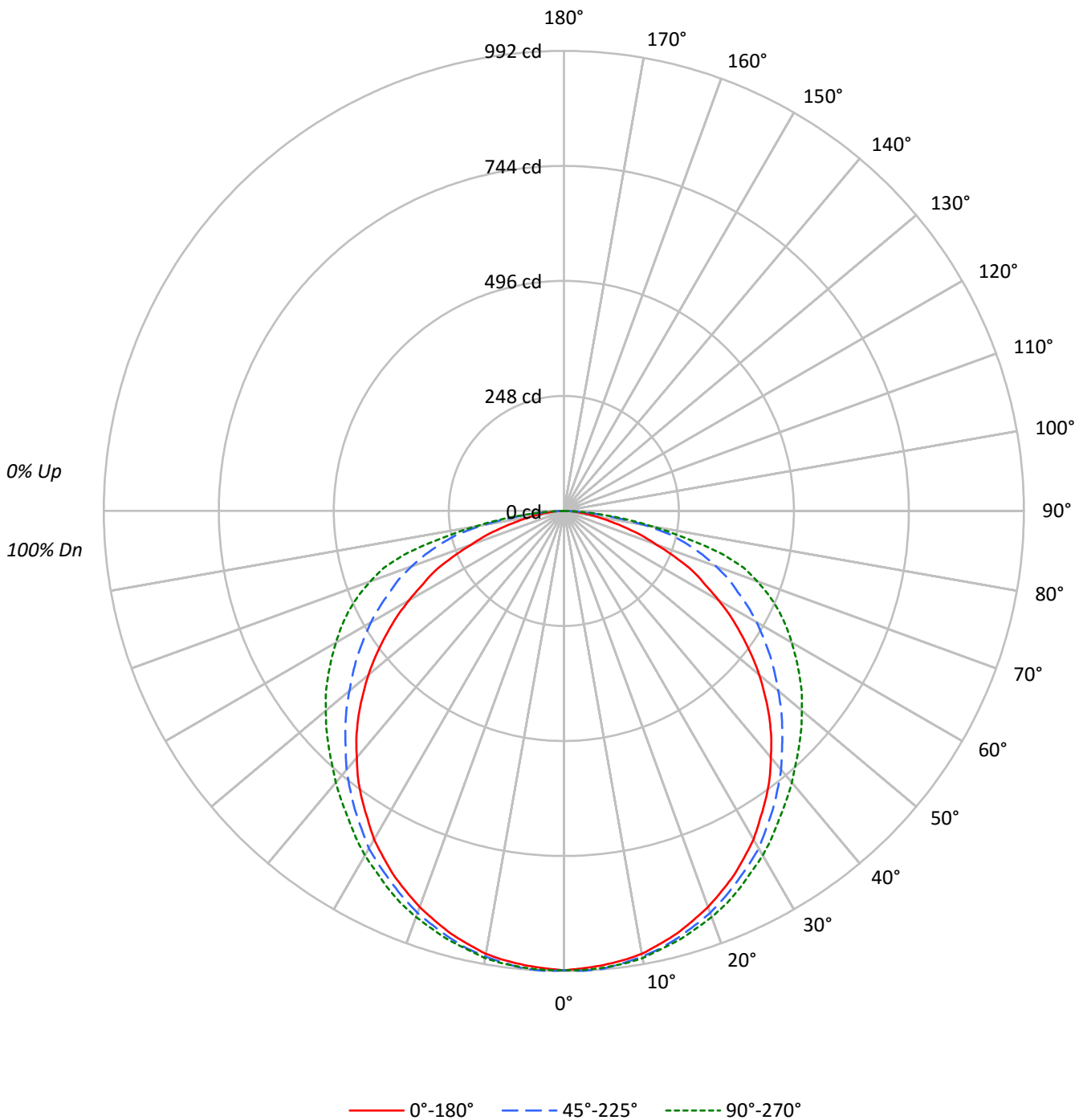
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2665	2665	2665
5°	2655	2676	2670
10°	2649	2665	2675
15°	2627	2654	2669
20°	2603	2641	2668
25°	2575	2620	2665
30°	2541	2612	2665
35°	2493	2581	2662
40°	2440	2559	2686
45°	2383	2535	2730
50°	2304	2526	2804
55°	2199	2546	2911
60°	2073	2584	3054
65°	1957	2634	3262
70°	1672	2747	3493
75°	1400	2860	3630
80°	1147	2765	3028
85°	997	2050	2226



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.9	3.1
10°-20°	268.5	8.9
20°-30°	407.0	13.5
30°-40°	491.4	16.3
40°-50°	516.4	17.2
50°-60°	485.8	16.2
60°-70°	405.1	13.5
70°-80°	268.4	8.9
80°-90°	71.5	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°	769.4	25.6
0°-40°	1260.8	41.9
0°-60°	2263.0	75.2
0°-90°	3008.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3008.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	990	990	990	990	990	
5°	983	985	990	990	989	93
15°	943	947	953	956	958	266
25°	867	873	882	894	898	399
35°	759	767	786	803	810	475
45°	626	636	666	700	717	482
55°	469	490	543	598	620	419
65°	307	334	414	482	512	299
75°	135	188	275	332	349	146
85°	32	49	66	72	72	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	990.5	990.5	990.5	990.5	990.5
2.5°	986.7	988.6	992.4	992.4	990.5
5°	982.9	984.8	990.5	990.5	988.6
7.5°	977.2	979.1	982.9	986.7	984.8
10°	969.6	971.5	975.3	979.1	979.1
12.5°	956.3	958.2	965.8	967.7	967.7
15°	943.1	946.9	952.6	956.3	958.2
17.5°	926.0	929.8	937.4	945.0	945.0
20°	908.9	912.7	922.2	929.8	931.7
22.5°	888.0	893.7	903.2	912.7	916.5
25°	867.2	872.9	882.3	893.7	897.5
27.5°	842.5	848.2	861.5	874.8	876.6
30°	817.8	823.5	840.6	852.0	857.7
32.5°	787.5	795.1	812.1	829.2	834.9
35°	759.0	766.6	785.6	802.6	810.2
37.5°	728.6	736.2	757.1	778.0	787.5
40°	694.5	704.0	728.6	751.4	764.7
42.5°	662.2	671.7	696.4	726.7	740.0
45°	626.2	635.7	666.0	700.2	717.3
47.5°	588.2	599.6	635.7	677.4	694.5
50°	550.3	563.6	603.4	650.8	669.8
52.5°	510.4	527.5	573.0	624.3	647.1
55°	468.7	489.6	542.7	597.7	620.5
57.5°	428.8	447.8	510.4	569.3	593.9
60°	385.2	409.9	480.1	540.8	567.4
62.5°	343.4	370.0	447.8	512.3	540.8
65°	307.4	334.0	413.7	482.0	512.3
67.5°	260.0	296.0	385.2	449.7	480.1
70°	212.5	261.9	349.1	415.6	444.0
72.5°	176.5	223.9	313.1	379.5	406.1
75°	134.7	187.9	275.1	332.1	349.1
77.5°	100.6	155.6	235.3	263.8	265.7
80°	74.0	119.5	178.4	187.9	195.4
82.5°	51.2	83.5	115.7	127.1	130.9
85°	32.3	49.3	66.4	72.1	72.1
87.5°	17.1	19.0	22.8	22.8	22.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)