

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: P308317

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-HRP-CP187-W2A-U-5000K**

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: P308317
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-5000K
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: 2978.0 lumens
Efficiency: N/A
Efficacy: 78.2 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

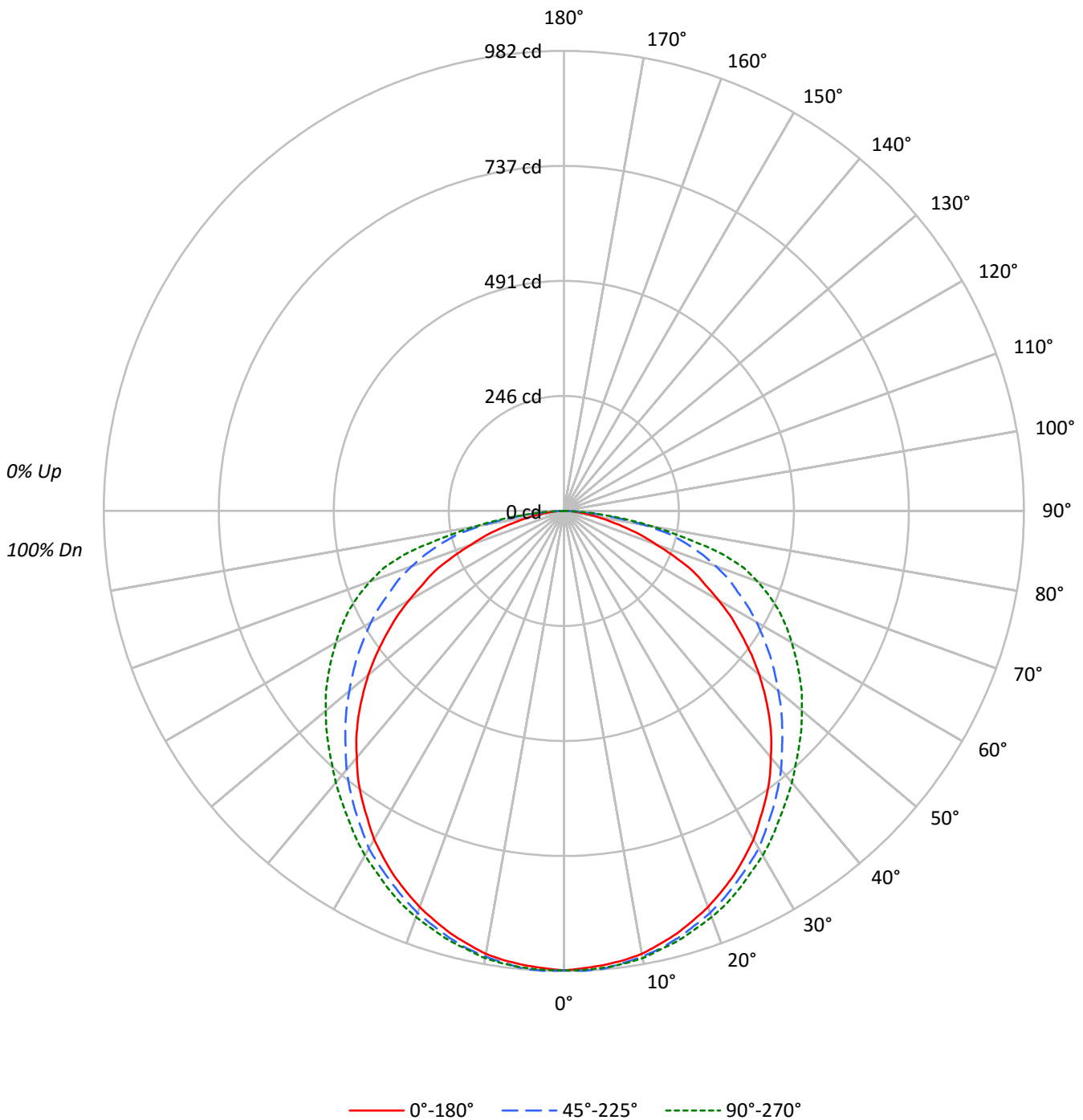
Input Watts (W): 38.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2639	2639	2639
5°	2629	2649	2644
10°	2623	2638	2649
15°	2601	2627	2643
20°	2577	2615	2641
25°	2549	2594	2638
30°	2516	2586	2638
35°	2468	2555	2635
40°	2415	2534	2660
45°	2359	2509	2702
50°	2281	2501	2776
55°	2177	2521	2882
60°	2053	2558	3023
65°	1938	2607	3230
70°	1655	2720	3459
75°	1387	2832	3594
80°	1136	2737	2999
85°	985	2032	2205



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.9	3.1
10°-20°	265.9	8.9
20°-30°	402.9	13.5
30°-40°	486.5	16.3
40°-50°	511.2	17.2
50°-60°	481.0	16.2
60°-70°	401.0	13.5
70°-80°	265.7	8.9
80°-90°	70.8	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°	761.7	25.6
0°-40°	1248.2	41.9
0°-60°	2240.4	75.2
0°-90°	2978.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2978.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	981	981	981	981	981	
5°	973	975	981	981	979	92
15°	934	937	943	947	949	263
25°	858	864	874	885	889	395
35°	751	759	778	795	802	470
45°	620	629	659	693	710	477
55°	464	485	537	592	614	415
65°	304	331	410	477	507	296
75°	133	186	272	329	346	145
85°	32	49	66	71	71	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	980.6	980.6	980.6	980.6	980.6
2.5°	976.9	978.7	982.5	982.5	980.6
5°	973.1	975.0	980.6	980.6	978.7
7.5°	967.5	969.4	973.1	976.9	975.0
10°	960.0	961.8	965.6	969.4	969.4
12.5°	946.8	948.7	956.2	958.1	958.1
15°	933.7	937.4	943.1	946.8	948.7
17.5°	916.7	920.5	928.0	935.5	935.5
20°	899.8	903.6	913.0	920.5	922.4
22.5°	879.2	884.8	894.2	903.6	907.4
25°	858.5	864.1	873.5	884.8	888.6
27.5°	834.1	839.7	852.9	866.0	867.9
30°	809.7	815.3	832.2	843.5	849.1
32.5°	779.6	787.1	804.0	820.9	826.6
35°	751.4	758.9	777.7	794.6	802.2
37.5°	721.4	728.9	749.6	770.2	779.6
40°	687.6	697.0	721.4	743.9	757.1
42.5°	655.6	665.0	689.4	719.5	732.6
45°	619.9	629.3	659.4	693.2	710.1
47.5°	582.4	593.6	629.3	670.7	687.6
50°	544.8	557.9	597.4	644.4	663.1
52.5°	505.3	522.2	567.3	618.1	640.6
55°	464.0	484.7	537.3	591.8	614.3
57.5°	424.6	443.3	505.3	563.6	588.0
60°	381.4	405.8	475.3	535.4	561.7
62.5°	340.0	366.3	443.3	507.2	535.4
65°	304.3	330.6	409.5	477.2	507.2
67.5°	257.4	293.1	381.4	445.2	475.3
70°	210.4	259.2	345.7	411.4	439.6
72.5°	174.7	221.7	310.0	375.7	402.0
75°	133.4	186.0	272.4	328.8	345.7
77.5°	99.6	154.0	232.9	261.1	263.0
80°	73.3	118.4	176.6	186.0	193.5
82.5°	50.7	82.7	114.6	125.9	129.6
85°	31.9	48.8	65.8	71.4	71.4
87.5°	16.9	18.8	22.5	22.5	22.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)