

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: P308315

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-HRP-CP187-W2A-U-4000K**

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: P308315
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-4000K
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: 2887.0 lumens
Efficiency: N/A
Efficacy: 76.8 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

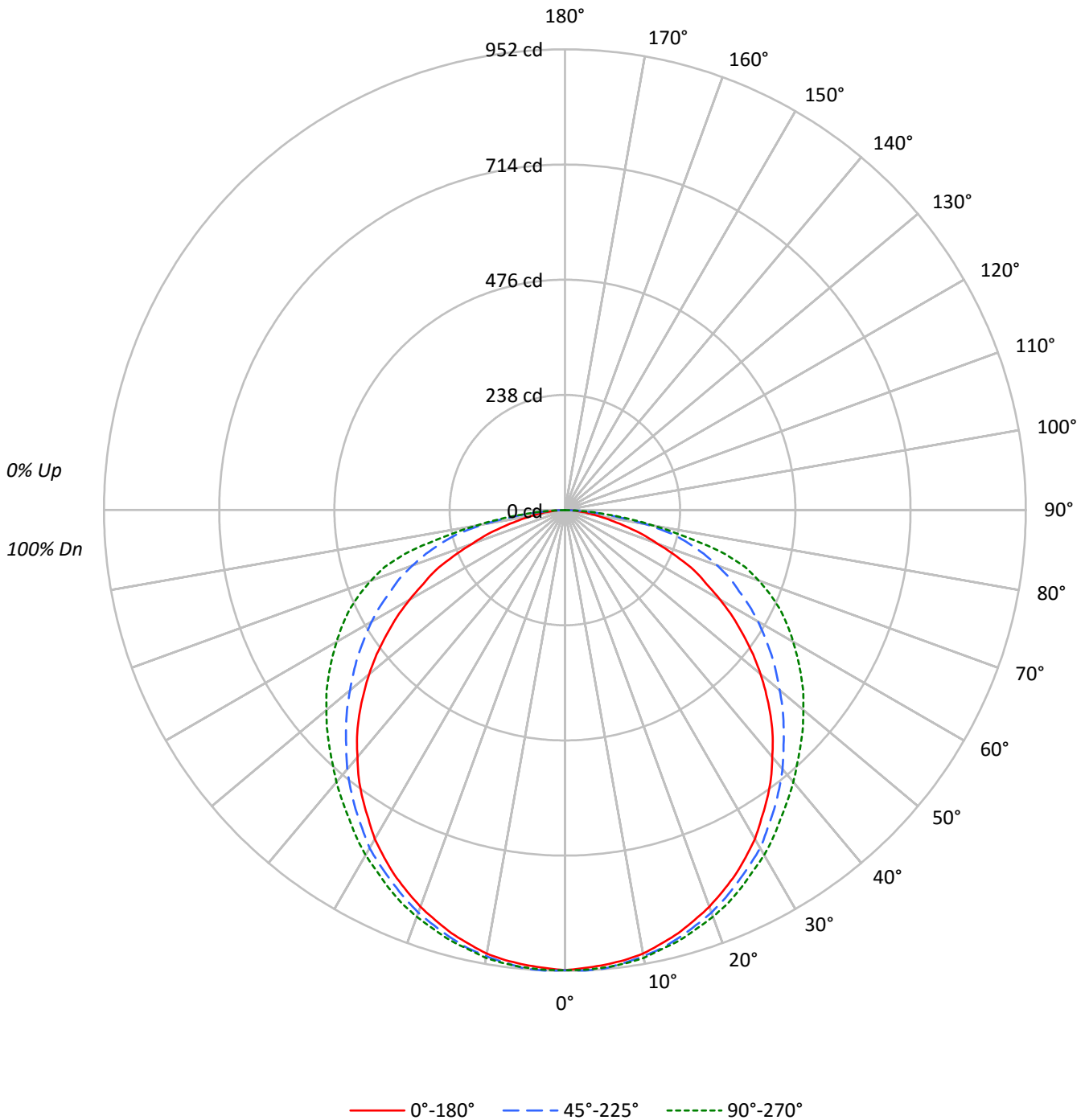
Input Watts (W): 37.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2558	2558	2558
5°	2548	2568	2563
10°	2543	2558	2568
15°	2522	2547	2562
20°	2498	2535	2561
25°	2471	2514	2558
30°	2439	2507	2558
35°	2393	2477	2554
40°	2342	2457	2578
45°	2287	2433	2620
50°	2211	2424	2691
55°	2110	2444	2794
60°	1990	2480	2930
65°	1878	2528	3131
70°	1605	2637	3353
75°	1344	2746	3484
80°	1100	2653	2907
85°	957	1967	2137



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.1	3.1
10°-20°	257.7	8.9
20°-30°	390.6	13.5
30°-40°	471.6	16.3
40°-50°	495.6	17.2
50°-60°	466.3	16.2
60°-70°	388.8	13.5
70°-80°	257.6	8.9
80°-90°	68.7	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°	738.4	25.6
0°-40°	1210.1	41.9
0°-60°	2172.0	75.2
0°-90°	2887.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2887.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	951	951	951	951	951	
5°	943	945	951	951	949	90
15°	905	909	914	918	920	255
25°	832	838	847	858	861	383
35°	728	736	754	770	778	455
45°	601	610	639	672	688	463
55°	450	470	521	574	596	402
65°	295	320	397	463	492	287
75°	129	180	264	319	335	140
85°	31	47	64	69	69	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	950.7	950.7	950.7	950.7	950.7
2.5°	947.0	948.8	952.5	952.5	950.7
5°	943.4	945.2	950.7	950.7	948.8
7.5°	937.9	939.7	943.4	947.0	945.2
10°	930.6	932.4	936.1	939.7	939.7
12.5°	917.9	919.7	927.0	928.8	928.8
15°	905.1	908.8	914.2	917.9	919.7
17.5°	888.7	892.4	899.7	906.9	906.9
20°	872.3	876.0	885.1	892.4	894.2
22.5°	852.3	857.8	866.9	876.0	879.6
25°	832.3	837.7	846.8	857.8	861.4
27.5°	808.6	814.1	826.8	839.6	841.4
30°	784.9	790.4	806.8	817.7	823.2
32.5°	755.8	763.1	779.5	795.9	801.3
35°	728.5	735.8	754.0	770.4	777.6
37.5°	699.3	706.6	726.7	746.7	755.8
40°	666.6	675.7	699.3	721.2	733.9
42.5°	635.6	644.7	668.4	697.5	710.3
45°	601.0	610.1	639.2	672.0	688.4
47.5°	564.6	575.5	610.1	650.2	666.6
50°	528.1	540.9	579.1	624.7	642.9
52.5°	489.9	506.3	550.0	599.2	621.0
55°	449.8	469.9	520.9	573.7	595.5
57.5°	411.6	429.8	489.9	546.4	570.0
60°	369.7	393.4	460.8	519.0	544.5
62.5°	329.6	355.1	429.8	491.7	519.0
65°	295.0	320.5	397.0	462.6	491.7
67.5°	249.5	284.1	369.7	431.6	460.8
70°	204.0	251.3	335.1	398.8	426.2
72.5°	169.4	214.9	300.5	364.2	389.7
75°	129.3	180.3	264.1	318.7	335.1
77.5°	96.5	149.3	225.8	253.1	255.0
80°	71.0	114.7	171.2	180.3	187.6
82.5°	49.2	80.1	111.1	122.0	125.7
85°	31.0	47.4	63.7	69.2	69.2
87.5°	16.4	18.2	21.9	21.9	21.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)