

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: P313126

Luminaire Tested: **24FCZ2-35-UNV-L83050-HRP-CP125-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: P313126  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-35-UNV-L83050-HRP-CP125-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB SHEET  
Light Source: (168) 3500K 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: 2468.0 lumens  
Efficiency: N/A  
Efficacy: 88.1 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

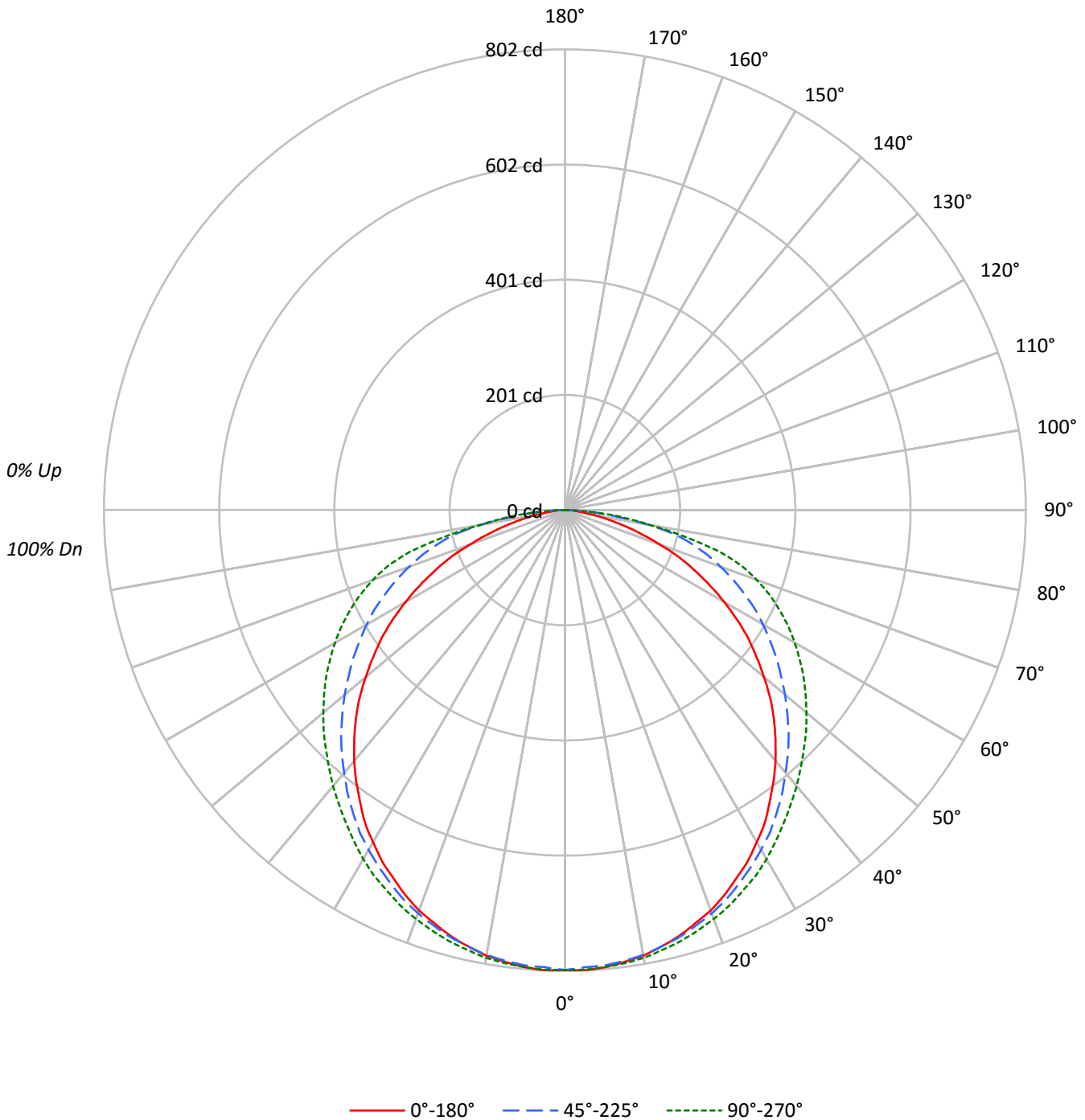
Input Watts (W): 28  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	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	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	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	24	35	29	24	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1077	1077	1077
5°	1079	1075	1079
10°	1076	1074	1081
15°	1069	1072	1082
20°	1062	1070	1084
25°	1049	1065	1086
30°	1037	1061	1090
35°	1020	1056	1091
40°	1002	1049	1102
45°	979	1048	1119
50°	947	1047	1148
55°	914	1054	1190
60°	862	1070	1243
65°	796	1096	1313
70°	695	1134	1398
75°	564	1193	1445
80°	416	1168	1168
85°	320	861	973



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.9	3.1
10°-20°	217.8	8.8
20°-30°	331.6	13.4
30°-40°	402.7	16.3
40°-50°	425.4	17.2
50°-60°	401.4	16.3
60°-70°	333.8	13.5
70°-80°	219.6	8.9
80°-90°	59.9	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°	625.3	25.3
0°-40°	1028.0	41.7
0°-60°	1854.8	75.2
0°-90°	2468.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2468.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	801	801	801	801	801	
5°	799	799	796	799	799	76
15°	768	769	770	777	777	217
25°	707	711	717	730	732	326
35°	621	628	643	659	664	389
45°	514	525	551	578	588	396
55°	390	406	450	492	507	347
65°	250	279	344	395	412	247
75°	108	158	229	272	278	117
85°	21	46	56	62	63	25
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	800.7	800.7	800.7	800.7	800.7
2.5°	801.8	800.7	796.6	800.7	800.7
5°	798.7	798.7	795.6	798.7	798.7
7.5°	793.5	793.5	791.4	795.6	795.6
10°	787.3	787.3	786.3	791.4	791.4
12.5°	778.0	779.0	778.0	784.2	784.2
15°	767.7	768.7	769.7	777.0	777.0
17.5°	754.2	756.3	758.4	766.6	767.7
20°	741.9	742.9	747.0	756.3	757.3
22.5°	725.3	728.4	733.6	742.9	746.0
25°	706.7	710.9	717.1	729.5	731.5
27.5°	689.2	692.3	700.5	714.0	718.1
30°	667.5	672.6	683.0	696.4	701.6
32.5°	646.8	652.0	664.4	678.8	683.0
35°	621.0	628.2	642.7	659.2	664.4
37.5°	596.2	603.4	621.0	639.6	645.8
40°	570.3	578.6	597.2	618.9	627.2
42.5°	542.4	553.8	574.5	598.2	607.5
45°	514.5	524.9	550.7	577.6	587.9
47.5°	484.6	497.0	524.9	556.9	569.3
50°	452.5	468.0	500.1	535.2	548.6
52.5°	420.5	438.1	474.2	513.5	528.0
55°	389.5	406.1	449.5	491.8	507.3
57.5°	355.4	376.1	423.6	469.1	484.6
60°	320.3	343.0	397.8	445.3	461.8
62.5°	285.2	311.0	373.0	420.5	438.1
65°	250.0	279.0	344.1	394.7	412.3
67.5°	215.9	248.0	317.2	367.8	385.4
70°	176.7	217.0	288.3	337.9	355.4
72.5°	140.5	187.0	260.4	306.9	322.4
75°	108.5	158.1	229.4	271.7	277.9
77.5°	79.6	129.2	197.3	211.8	212.8
80°	53.7	103.3	150.8	148.8	150.8
82.5°	35.1	77.5	95.1	106.4	107.5
85°	20.7	45.5	55.8	62.0	63.0
87.5°	10.3	15.5	19.6	20.7	22.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)