

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: P310559

Luminaire Tested: **24FCZ2-30-UNV-L82765-CP125-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: P310559
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-30-UNV-L82765-CP125-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (168) 5500K 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: 2817.0 lumens
Efficiency: N/A
Efficacy: 116.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

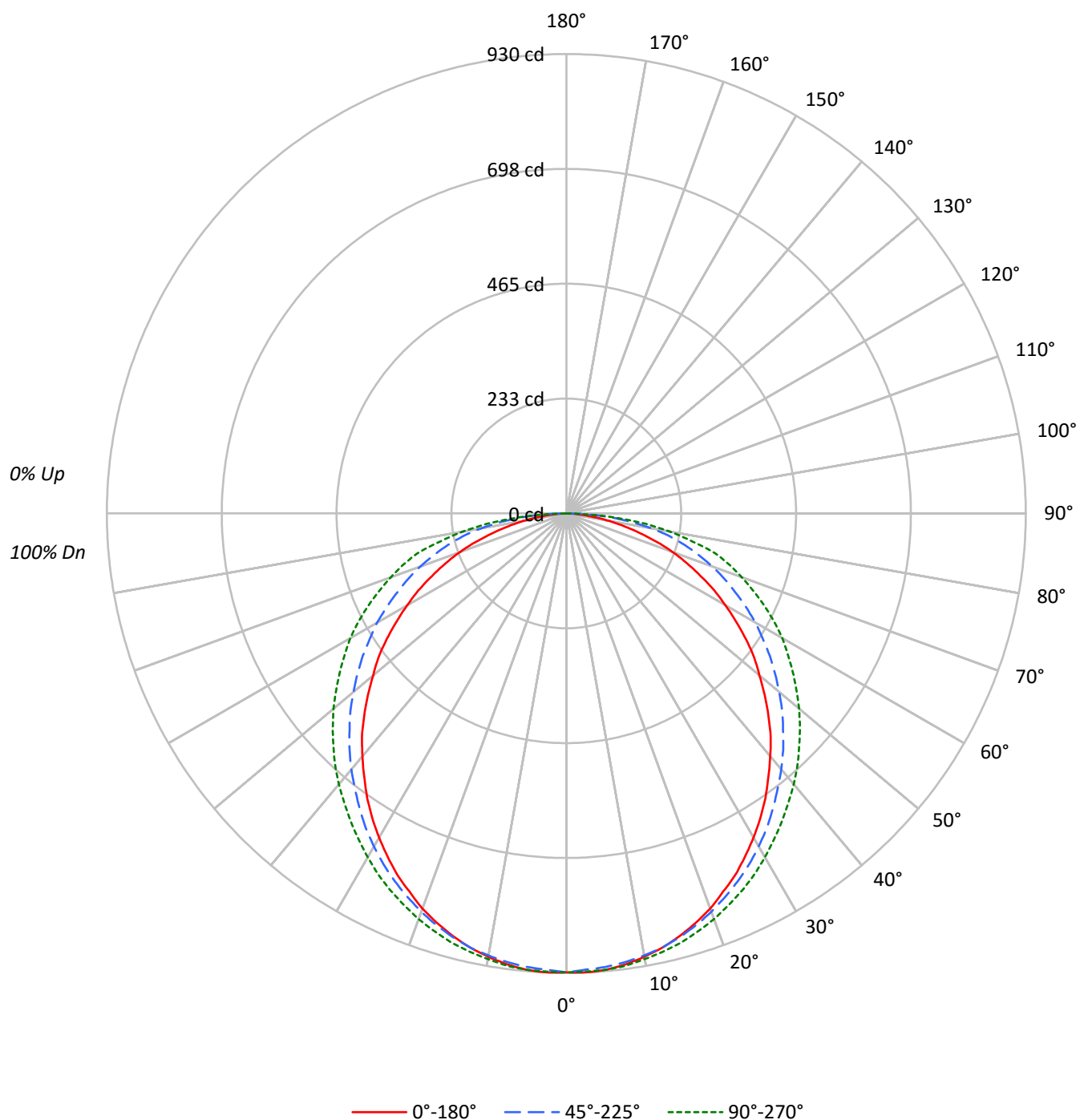
Input Watts (W): 24.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	100	96	92	96	92	89		92	89	87		82
2	98	89	81	75	95	87	80	74	83	78	73		80	75	71		67
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		56
4	81	68	59	52	79	67	58	52	64	57	51		62	56	50		47
5	74	61	52	45	72	60	51	44	58	50	44		56	49	43		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	64	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	37	31	57	45	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1250	1250	1250
5°	1252	1245	1252
10°	1245	1241	1251
15°	1234	1237	1252
20°	1219	1229	1251
25°	1200	1220	1250
30°	1178	1210	1249
35°	1154	1197	1250
40°	1128	1189	1257
45°	1101	1181	1268
50°	1068	1178	1287
55°	1041	1179	1313
60°	1001	1190	1358
65°	955	1202	1408
70°	904	1239	1485
75°	806	1292	1623
80°	688	1368	1658
85°	491	1357	1587



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.9	3.1
10°-20°	251.4	8.9
20°-30°	379.7	13.5
30°-40°	457.6	16.2
40°-50°	480.4	17.1
50°-60°	449.5	16.0
60°-70°	371.2	13.2
70°-80°	252.9	9.0
80°-90°	86.3	3.1
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°	719.0	25.5
0°-40°	1176.7	41.8
0°-60°	2106.6	74.8
0°-90°	2817.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2817.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	929	929	929	929	929	
5°	927	926	922	927	927	88
15°	886	887	888	897	899	250
25°	808	812	822	837	842	372
35°	703	710	729	753	761	439
45°	578	591	621	654	666	446
55°	444	462	503	544	560	396
65°	300	325	378	425	442	298
75°	155	191	249	295	312	165
85°	32	63	88	99	103	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	929.0	929.0	929.0	929.0	929.0
2.5°	930.0	929.0	924.3	929.0	928.1
5°	927.2	926.2	921.5	927.2	927.2
7.5°	920.6	920.6	915.9	922.5	923.4
10°	911.3	911.3	908.5	915.9	915.9
12.5°	900.0	900.0	900.0	907.5	908.5
15°	886.0	887.0	887.9	897.2	899.1
17.5°	869.2	871.1	873.9	885.1	887.0
20°	851.4	853.3	858.0	871.1	873.9
22.5°	829.0	833.7	840.2	855.2	858.0
25°	808.5	812.2	821.5	837.4	842.1
27.5°	783.2	788.8	801.0	817.8	824.3
30°	758.0	763.6	778.5	798.2	803.8
32.5°	730.9	739.3	755.2	775.7	782.3
35°	702.8	710.3	729.0	753.3	760.8
37.5°	672.0	682.3	702.8	729.0	738.4
40°	642.1	653.3	676.7	704.7	715.9
42.5°	612.2	623.4	649.6	681.3	692.6
45°	578.5	590.7	620.6	654.2	666.4
47.5°	544.9	559.8	592.6	628.1	641.2
50°	510.3	527.1	562.6	600.0	615.0
52.5°	479.5	495.4	532.7	572.9	586.9
55°	443.9	461.7	502.8	544.0	559.8
57.5°	407.5	427.1	471.1	515.9	531.8
60°	372.0	393.5	442.1	486.9	504.7
62.5°	337.4	358.9	409.4	456.1	473.9
65°	300.0	325.3	377.6	425.3	442.1
67.5°	264.5	291.6	346.7	393.5	410.3
70°	229.9	256.1	315.0	360.8	377.6
72.5°	192.5	222.4	281.3	329.0	346.7
75°	155.1	190.7	248.6	295.3	312.2
77.5°	120.6	157.0	215.0	253.3	261.7
80°	88.8	126.2	176.6	203.7	214.0
82.5°	57.0	94.4	134.6	154.2	162.6
85°	31.8	62.6	87.9	99.1	102.8
87.5°	13.1	27.1	35.5	40.2	40.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)