

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: P307917

Luminaire Tested: **14FCZ2-29-UNV-L82765-S-CP250-W2A-U-3000K**

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: P307917
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-29-UNV-L82765-S-CP250-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.250" 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: 2481.0 lumens
Efficiency: N/A
Efficacy: 105.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

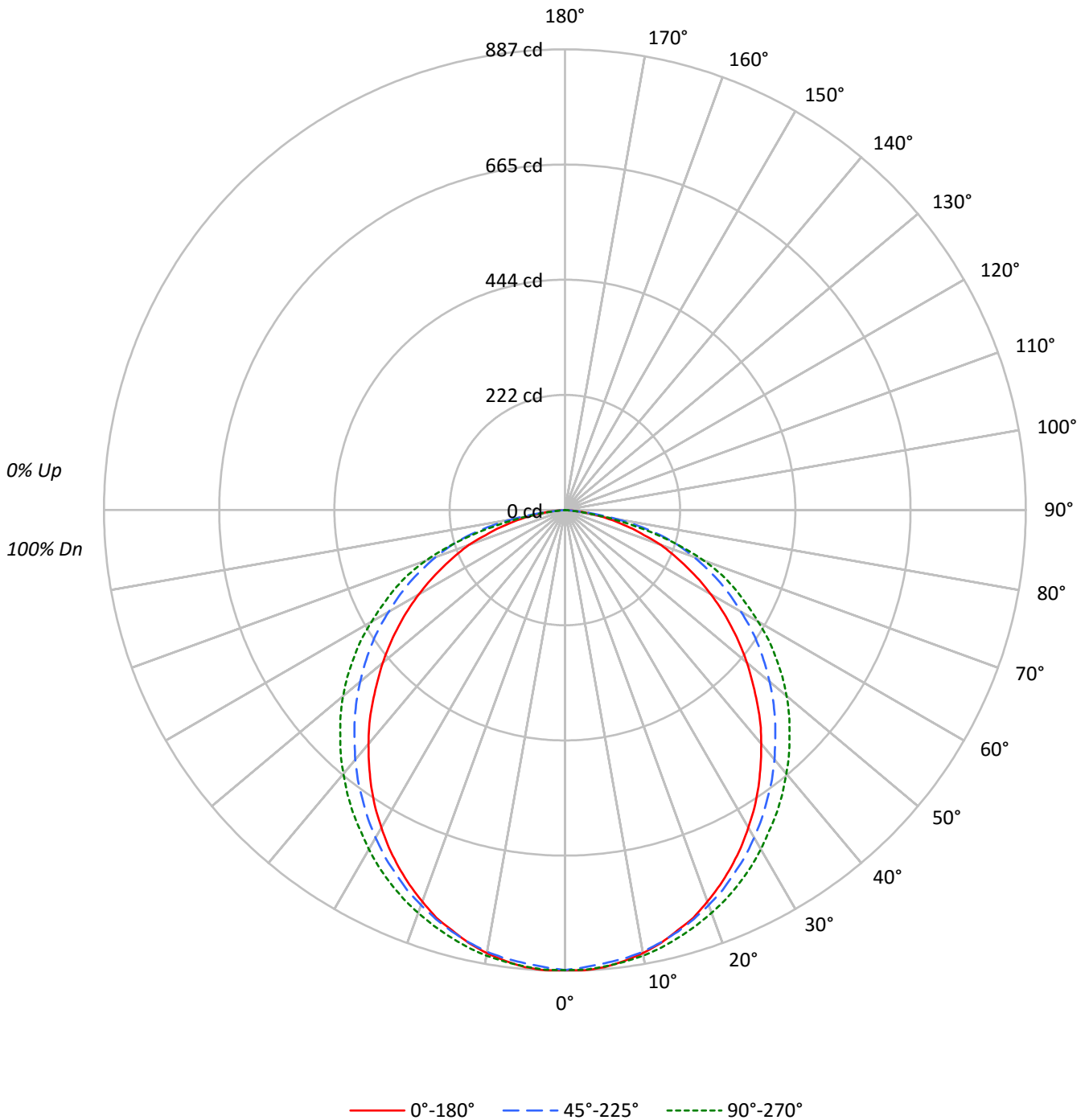
Input Watts (W): 23.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2383	2383	2383
5°	2386	2366	2383
10°	2366	2360	2380
15°	2334	2341	2371
20°	2297	2318	2364
25°	2250	2290	2356
30°	2194	2263	2343
35°	2134	2231	2336
40°	2066	2204	2329
45°	1990	2177	2327
50°	1916	2153	2333
55°	1835	2135	2326
60°	1748	2105	2310
65°	1645	2099	2311
70°	1548	2081	2245
75°	1343	2034	1918
80°	1086	1640	1277
85°	722	571	380



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.6	3.4
10°-20°	238.0	9.6
20°-30°	357.0	14.4
30°-40°	425.8	17.2
40°-50°	440.2	17.7
50°-60°	402.0	16.2
60°-70°	316.3	12.7
70°-80°	184.1	7.4
80°-90°	33.9	1.4
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°	678.6	27.4
0°-40°	1104.5	44.5
0°-60°	1946.6	78.5
0°-90°	2481.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2481.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	886	886	886	886	886	
5°	883	881	876	883	882	84
15°	838	839	840	851	851	236
25°	758	761	771	790	793	349
35°	650	658	679	705	711	406
45°	523	540	572	604	611	404
55°	391	412	455	488	496	350
65°	258	285	330	356	363	256
75°	129	160	196	192	184	137
85°	23	33	18	15	12	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	885.7	885.7	885.7	885.7	885.7
2.5°	886.9	884.4	880.8	886.9	885.7
5°	883.2	880.8	875.8	883.2	882.0
7.5°	875.8	873.4	870.9	878.3	877.1
10°	866.0	864.8	863.5	872.1	870.9
12.5°	853.7	853.7	852.5	862.3	862.3
15°	837.7	838.9	840.2	851.2	851.2
17.5°	822.9	821.7	825.4	837.7	838.9
20°	802.0	804.5	809.4	824.2	825.4
22.5°	781.1	783.6	792.2	806.9	810.6
25°	757.7	761.4	771.3	789.7	793.4
27.5°	733.1	738.1	751.6	771.3	775.0
30°	706.1	713.5	728.2	750.4	754.1
32.5°	679.0	686.4	704.9	727.0	731.9
35°	649.5	658.1	679.0	704.9	711.0
37.5°	618.7	629.8	654.4	680.2	687.6
40°	588.0	600.3	627.4	654.4	663.0
42.5°	557.2	569.5	599.1	629.8	638.4
45°	522.8	540.0	572.0	604.0	611.4
47.5°	489.6	508.0	543.7	575.7	585.5
50°	457.6	476.1	514.2	547.4	557.2
52.5°	424.4	444.1	484.7	519.1	527.7
55°	391.2	412.1	455.1	488.4	495.7
57.5°	358.0	380.1	424.4	456.4	465.0
60°	324.7	348.1	391.2	423.2	429.3
62.5°	291.5	316.1	360.4	388.7	394.9
65°	258.3	285.4	329.7	355.5	362.9
67.5°	226.3	253.4	296.5	321.1	327.2
70°	196.8	221.4	264.5	282.9	285.4
72.5°	159.9	190.7	232.5	242.3	236.2
75°	129.2	159.9	195.6	191.9	184.5
77.5°	98.4	129.2	152.5	140.2	130.4
80°	70.1	100.9	105.8	87.3	82.4
82.5°	45.5	70.1	59.0	45.5	36.9
85°	23.4	33.2	18.5	14.8	12.3
87.5°	7.4	4.9	2.5	2.5	1.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)