

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: P312333

Luminaire Tested: **14FCZ2-25-UNV-L83050-S-CP187-W2A-U-4500K**

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: P312333
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: 14FCZ2-25-UNV-L83050-S-CP187-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.187" POLYCARB SHEET
Light Source: (168) 4500K 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: 2350.0 lumens
Efficiency: N/A
Efficacy: 114.1 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

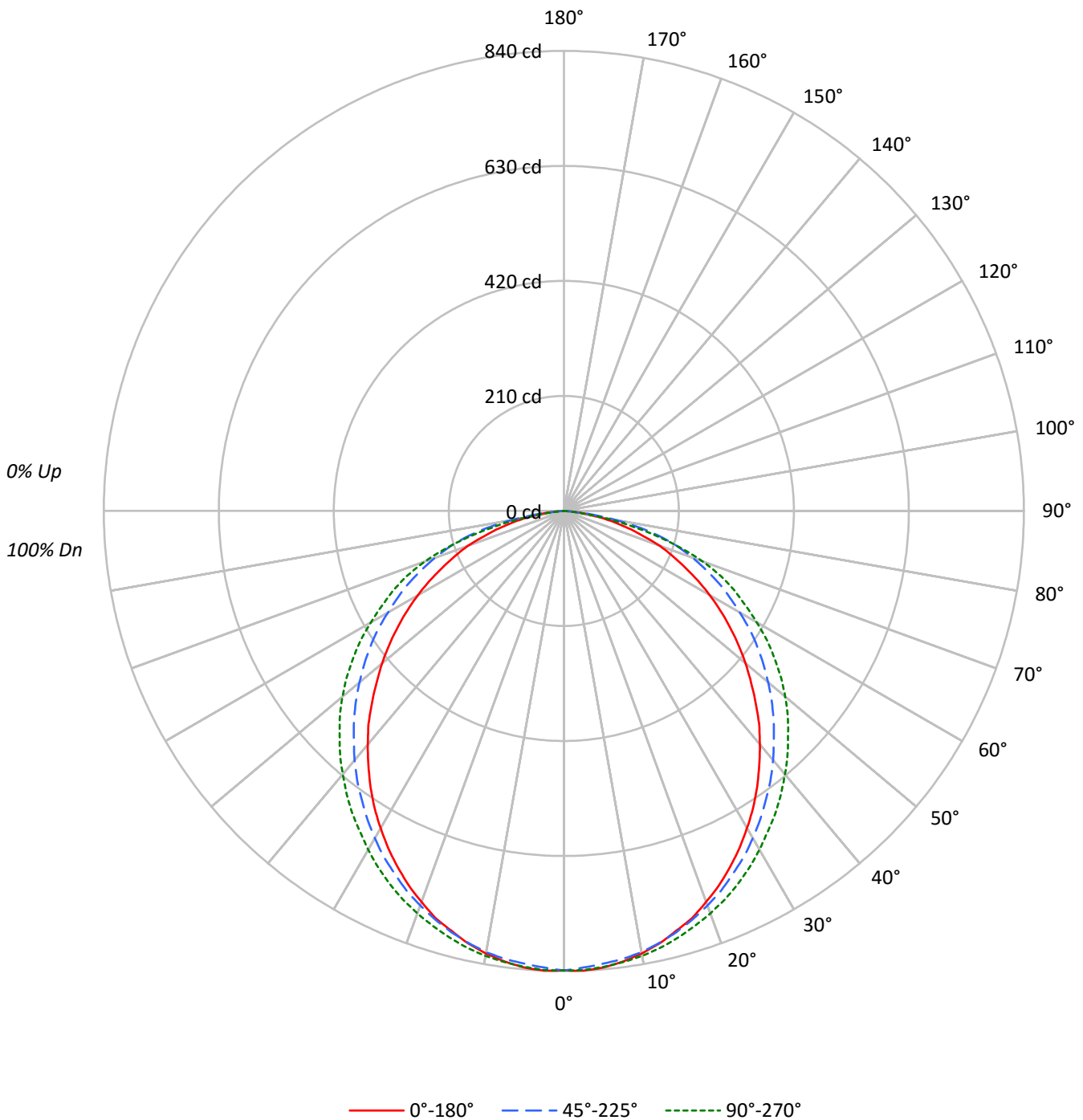
Input Watts (W): 20.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2257	2257	2257
5°	2260	2241	2257
10°	2241	2235	2254
15°	2211	2217	2246
20°	2176	2196	2239
25°	2131	2169	2231
30°	2078	2143	2219
35°	2021	2113	2213
40°	1956	2087	2206
45°	1885	2062	2204
50°	1814	2039	2210
55°	1738	2023	2203
60°	1655	1994	2188
65°	1558	1989	2188
70°	1467	1971	2127
75°	1272	1927	1817
80°	1029	1553	1210
85°	682	540	361



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.2	3.4
10°-20°	225.4	9.6
20°-30°	338.1	14.4
30°-40°	403.4	17.2
40°-50°	417.0	17.7
50°-60°	380.7	16.2
60°-70°	299.6	12.7
70°-80°	174.4	7.4
80°-90°	32.1	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°	642.8	27.4
0°-40°	1046.1	44.5
0°-60°	1843.9	78.5
0°-90°	2350.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2350.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	839	839	839	839	839	
5°	837	834	830	837	835	79
15°	794	795	796	806	806	224
25°	718	721	731	748	752	330
35°	615	623	643	668	674	385
45°	495	512	542	572	579	382
55°	370	390	431	463	470	331
65°	245	270	312	337	344	243
75°	122	152	185	182	175	130
85°	22	32	18	14	12	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	838.9	838.9	838.9	838.9	838.9
2.5°	840.1	837.7	834.3	840.1	838.9
5°	836.6	834.3	829.6	836.6	835.4
7.5°	829.6	827.3	824.9	831.9	830.8
10°	820.3	819.1	817.9	826.1	824.9
12.5°	808.6	808.6	807.5	816.8	816.8
15°	793.5	794.6	795.8	806.3	806.3
17.5°	779.5	778.3	781.8	793.5	794.6
20°	759.7	762.0	766.7	780.7	781.8
22.5°	739.9	742.2	750.4	764.3	767.8
25°	717.7	721.2	730.6	748.0	751.5
27.5°	694.4	699.1	711.9	730.6	734.0
30°	668.8	675.8	689.8	710.7	714.2
32.5°	643.2	650.2	667.6	688.6	693.3
35°	615.2	623.4	643.2	667.6	673.5
37.5°	586.1	596.6	619.9	644.3	651.3
40°	556.9	568.6	594.2	619.9	628.0
42.5°	527.8	539.5	567.4	596.6	604.7
45°	495.2	511.5	541.8	572.1	579.1
47.5°	463.7	481.2	515.0	545.3	554.6
50°	433.4	450.9	487.0	518.5	527.8
52.5°	402.0	420.6	459.1	491.7	499.9
55°	370.5	390.3	431.1	462.6	469.6
57.5°	339.1	360.0	402.0	432.3	440.4
60°	307.6	329.7	370.5	400.8	406.6
62.5°	276.1	299.4	341.4	368.2	374.0
65°	244.7	270.3	312.3	336.7	343.7
67.5°	214.4	240.0	280.8	304.1	309.9
70°	186.4	209.7	250.5	268.0	270.3
72.5°	151.5	180.6	220.2	229.5	223.7
75°	122.3	151.5	185.3	181.8	174.8
77.5°	93.2	122.3	144.5	132.8	123.5
80°	66.4	95.5	100.2	82.7	78.1
82.5°	43.1	66.4	55.9	43.1	35.0
85°	22.1	31.5	17.5	14.0	11.7
87.5°	7.0	4.7	2.3	2.3	1.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)