

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: P312317

Luminaire Tested: **14FCZ2-25-UNV-L83050-S-CA08-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: P312317
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-CA08-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 4000K 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: 2487.0 lumens
Efficiency: N/A
Efficacy: 123.7 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

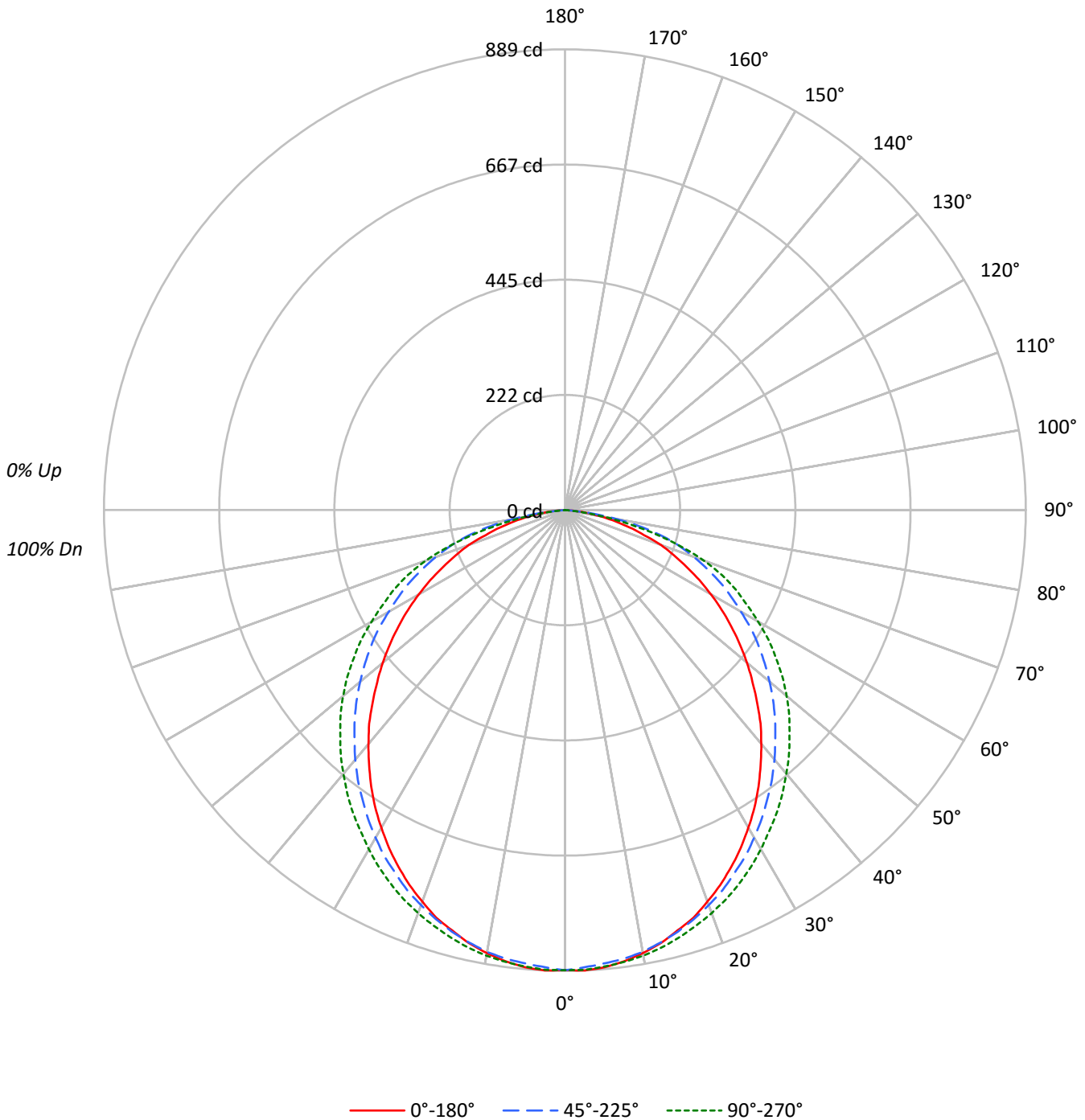
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P312317

CATALOG NUMBER: 14FCZ2-25-UNV-L83050-S-CA08-W2A-U-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P312317

CATALOG NUMBER: 14FCZ2-25-UNV-L83050-S-CA08-W2A-U-4000K

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°	2389	2389	2389
5°	2392	2372	2388
10°	2372	2365	2385
15°	2339	2346	2377
20°	2302	2324	2369
25°	2255	2295	2361
30°	2199	2268	2349
35°	2139	2236	2341
40°	2070	2209	2335
45°	1995	2182	2332
50°	1920	2158	2339
55°	1840	2140	2331
60°	1752	2110	2316
65°	1649	2104	2316
70°	1552	2086	2251
75°	1346	2039	1923
80°	1089	1643	1280
85°	722	571	380



TEST NUMBER: P312317

CATALOG NUMBER: 14FCZ2-25-UNV-L83050-S-CA08-W2A-U-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.8	3.4
10°-20°	238.6	9.6
20°-30°	357.8	14.4
30°-40°	426.9	17.2
40°-50°	441.3	17.7
50°-60°	402.9	16.2
60°-70°	317.1	12.7
70°-80°	184.6	7.4
80°-90°	34.0	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°	680.2	27.4
0°-40°	1107.1	44.5
0°-60°	1951.3	78.5
0°-90°	2487.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2487.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	888	888	888	888	888	
5°	885	883	878	885	884	84
15°	840	841	842	853	853	237
25°	760	763	773	792	795	350
35°	651	660	681	707	713	407
45°	524	541	573	605	613	405
55°	392	413	456	490	497	351
65°	259	286	330	356	364	257
75°	130	160	196	192	185	138
85°	23	33	18	15	12	30
90°	0	0	0	0	0	



TEST NUMBER: P312317

CATALOG NUMBER: 14FCZ2-25-UNV-L83050-S-CA08-W2A-U-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	887.8	887.8	887.8	887.8	887.8
2.5°	889.1	886.6	882.9	889.1	887.8
5°	885.4	882.9	878.0	885.4	884.1
7.5°	878.0	875.5	873.0	880.4	879.2
10°	868.1	866.9	865.6	874.3	873.0
12.5°	855.8	855.8	854.5	864.4	864.4
15°	839.7	841.0	842.2	853.3	853.3
17.5°	824.9	823.7	827.4	839.7	841.0
20°	804.0	806.4	811.4	826.2	827.4
22.5°	783.0	785.5	794.1	808.9	812.6
25°	759.6	763.3	773.1	791.6	795.3
27.5°	734.9	739.8	753.4	773.1	776.8
30°	707.8	715.2	730.0	752.2	755.9
32.5°	680.7	688.1	706.6	728.8	733.7
35°	651.1	659.7	680.7	706.6	712.7
37.5°	620.2	631.3	656.0	681.9	689.3
40°	589.4	601.7	628.9	656.0	664.6
42.5°	558.6	570.9	600.5	631.3	640.0
45°	524.1	541.3	573.4	605.4	612.8
47.5°	490.8	509.3	545.0	577.1	586.9
50°	458.7	477.2	515.4	548.7	558.6
52.5°	425.4	445.1	485.8	520.4	529.0
55°	392.1	413.1	456.2	489.5	496.9
57.5°	358.8	381.0	425.4	457.5	466.1
60°	325.5	349.0	392.1	424.2	430.3
62.5°	292.2	316.9	361.3	389.7	395.8
65°	258.9	286.1	330.5	356.4	363.8
67.5°	226.9	254.0	297.2	321.8	328.0
70°	197.3	222.0	265.1	283.6	286.1
72.5°	160.3	191.1	233.1	242.9	236.8
75°	129.5	160.3	196.1	192.4	185.0
77.5°	98.6	129.5	152.9	140.6	130.7
80°	70.3	101.1	106.0	87.5	82.6
82.5°	45.6	70.3	59.2	45.6	37.0
85°	23.4	33.3	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)