

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: P312173

Luminaire Tested: **14FCZ2-25-UNV-L83050-CA125-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: P312173
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
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-CA125-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.125" ACRYLIC 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

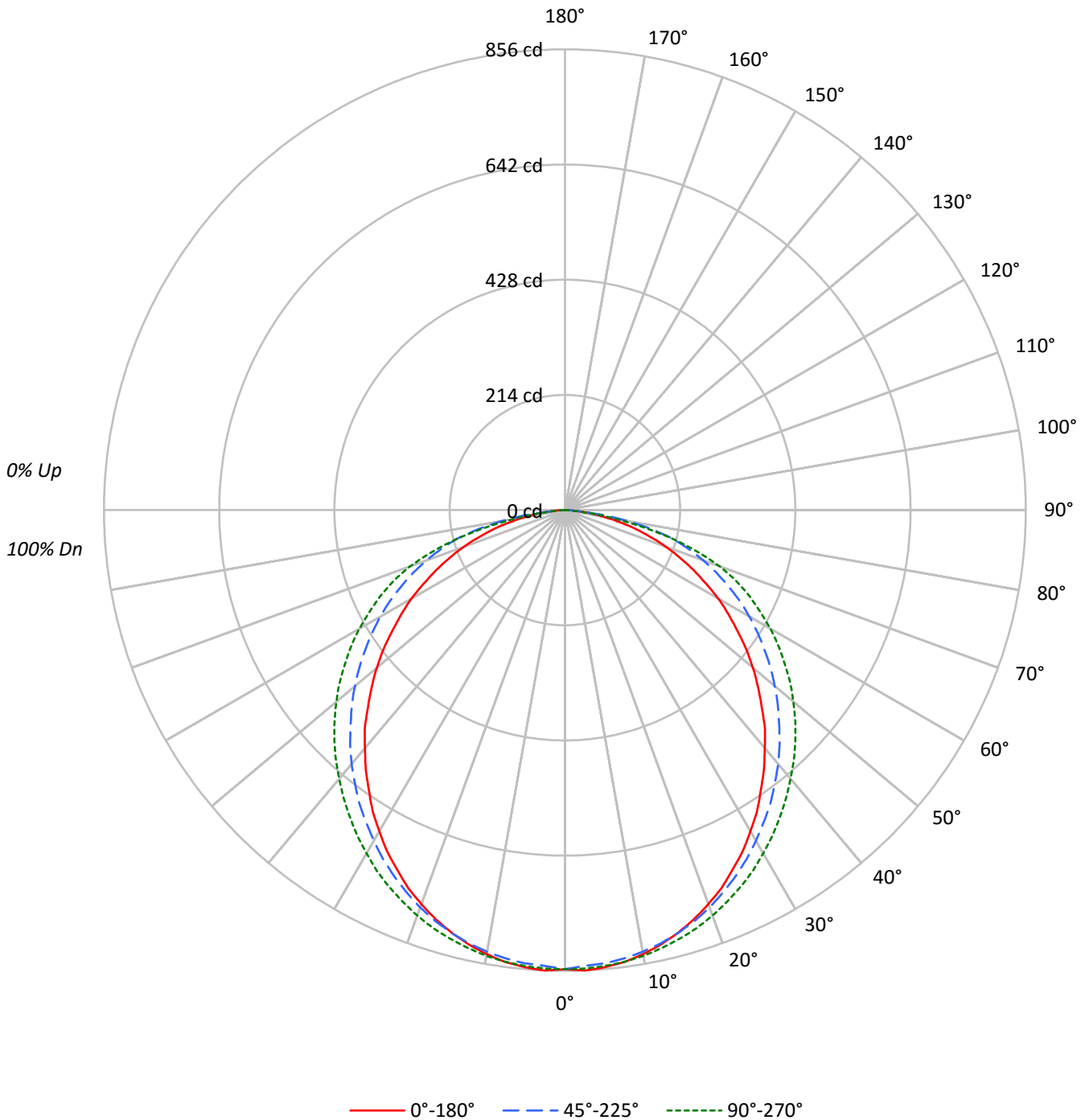
Lumens per Lamp: N/A
Luminaire Lumens: 2476.0 lumens
Efficiency: N/A
Efficacy: 120.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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



TEST NUMBER: P312173
CATALOG NUMBER: 14FCZ2-25-UNV-L83050-CA125-W2A-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P312173

CATALOG NUMBER: 14FC22-25-UNV-L83050-CA125-W2A-U-4500K

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	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2295	2295	2295
5°	2303	2283	2297
10°	2288	2276	2297
15°	2264	2265	2296
20°	2231	2250	2296
25°	2188	2228	2293
30°	2141	2204	2289
35°	2084	2186	2287
40°	2029	2164	2290
45°	1967	2141	2303
50°	1909	2131	2318
55°	1836	2124	2339
60°	1771	2127	2371
65°	1680	2134	2408
70°	1577	2150	2407
75°	1430	2170	2175
80°	1172	1874	1548
85°	871	886	358



TEST NUMBER: P312173

CATALOG NUMBER: 14FCZ2-25-UNV-L83050-CA125-W2A-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.7	3.3
10°-20°	230.6	9.3
20°-30°	347.3	14.0
30°-40°	416.8	16.8
40°-50°	434.4	17.5
50°-60°	402.2	16.2
60°-70°	325.0	13.1
70°-80°	198.1	8.0
80°-90°	40.9	1.7
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°	658.6	26.6
0°-40°	1075.4	43.4
0°-60°	1912.0	77.2
0°-90°	2476.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2476.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	853	853	853	853	853	
5°	852	850	845	851	850	81
15°	813	813	813	824	824	229
25°	737	742	750	769	772	340
35°	634	644	665	690	696	397
45°	517	532	563	594	605	399
55°	391	412	453	488	498	351
65°	264	290	335	369	378	261
75°	138	168	209	212	209	144
85°	28	42	29	16	12	35
90°	0	0	0	0	0	



TEST NUMBER: P312173

CATALOG NUMBER: 14FCZ2-25-UNV-L83050-CA125-W2A-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	853.0	853.0	853.0	853.0	853.0
2.5°	856.3	853.5	847.5	853.5	852.4
5°	852.4	850.2	845.3	851.3	850.2
7.5°	846.9	844.7	840.3	847.5	846.4
10°	837.5	836.4	833.1	841.4	840.8
12.5°	826.5	825.9	824.3	833.7	833.1
15°	812.7	813.2	813.2	824.3	824.3
17.5°	797.2	798.3	800.5	812.7	814.3
20°	779.0	781.2	785.6	799.4	801.6
22.5°	760.2	761.9	768.5	785.1	787.3
25°	737.0	741.5	750.3	769.1	772.4
27.5°	715.0	718.8	731.0	750.3	755.8
30°	689.0	695.1	709.4	730.4	736.5
32.5°	664.2	670.8	687.4	711.7	717.2
35°	634.4	644.3	665.3	689.6	696.2
37.5°	607.3	616.7	640.4	666.9	674.7
40°	577.5	589.1	616.1	644.3	652.0
42.5°	549.9	560.9	590.2	618.9	629.4
45°	516.8	532.2	562.6	594.1	605.1
47.5°	486.4	501.9	536.6	570.3	580.3
50°	456.0	472.6	509.0	543.8	553.8
52.5°	424.6	442.2	481.4	516.2	527.8
55°	391.4	411.9	452.7	488.1	498.5
57.5°	360.0	380.9	424.6	460.4	470.9
60°	329.0	350.6	395.3	429.5	440.6
62.5°	294.8	320.2	366.6	400.3	408.6
65°	263.9	289.9	335.1	368.8	378.2
67.5°	231.3	259.5	304.8	335.7	344.5
70°	200.4	229.7	273.3	302.0	305.9
72.5°	167.3	197.1	241.3	259.5	259.5
75°	137.5	167.8	208.7	212.0	209.2
77.5°	104.9	138.6	165.1	158.5	151.8
80°	75.6	108.8	120.9	108.8	99.9
82.5°	50.8	78.9	72.9	58.0	51.3
85°	28.2	42.0	28.7	16.0	11.6
87.5°	10.5	9.4	2.8	2.8	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)