

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: P312187

Luminaire Tested: **14FCZ2-25-UNV-L83050-CP250-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: P312187
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-CP250-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.250" POLYCARB 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

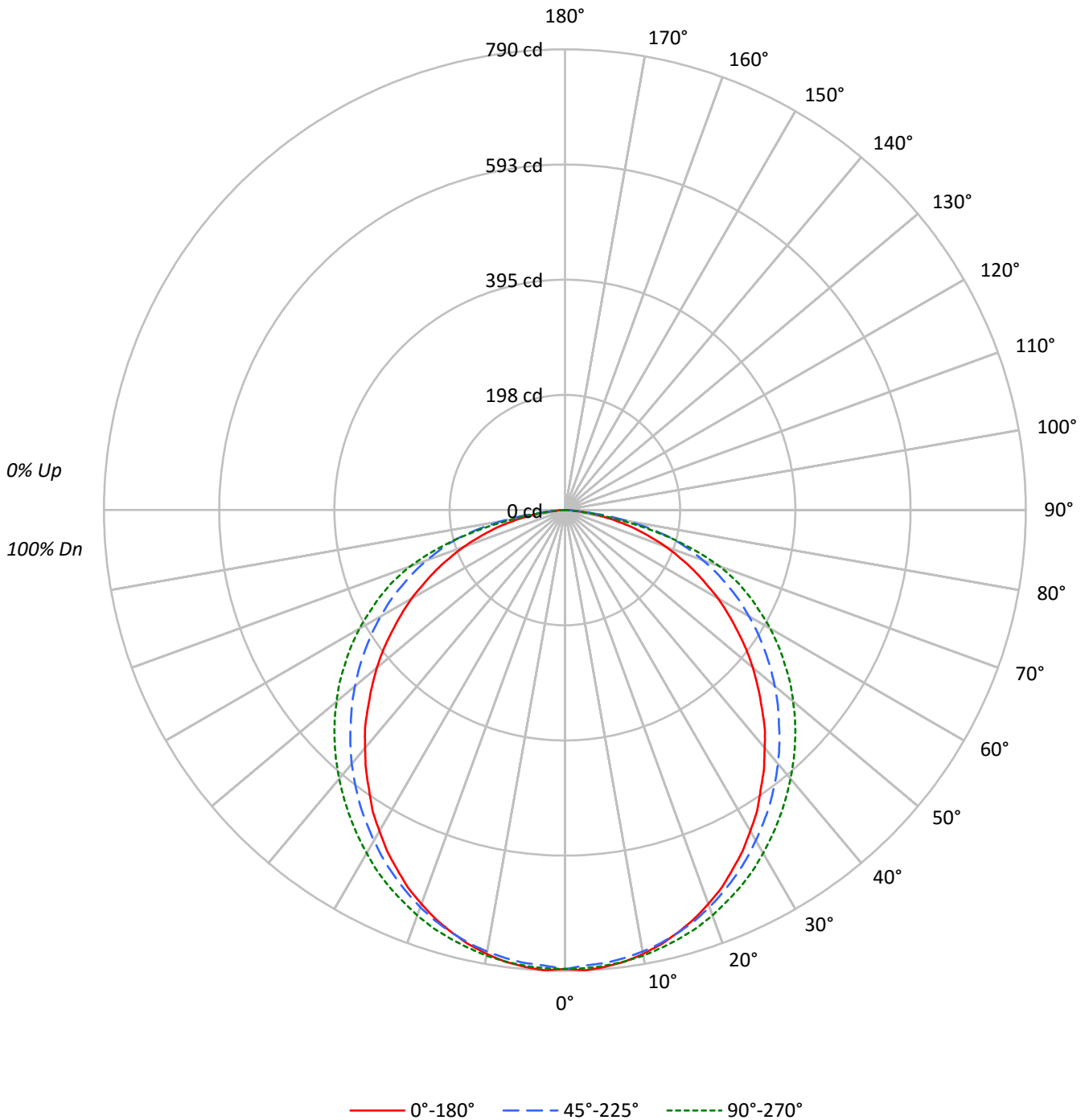
Lumens per Lamp: N/A
Luminaire Lumens: 2284.0 lumens
Efficiency: N/A
Efficacy: 113.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 20.1
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



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 14FC22-25-UNV-L83050-CP250-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	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°	2117	2117	2117
5°	2124	2106	2119
10°	2111	2100	2119
15°	2089	2090	2118
20°	2058	2075	2118
25°	2019	2055	2116
30°	1975	2033	2111
35°	1922	2016	2110
40°	1871	1997	2113
45°	1814	1975	2124
50°	1761	1966	2138
55°	1694	1959	2158
60°	1633	1962	2187
65°	1550	1968	2222
70°	1455	1983	2220
75°	1318	2001	2007
80°	1082	1728	1429
85°	803	818	330



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.5	3.3
10°-20°	212.7	9.3
20°-30°	320.4	14.0
30°-40°	384.5	16.8
40°-50°	400.7	17.5
50°-60°	371.0	16.2
60°-70°	299.7	13.1
70°-80°	182.8	8.0
80°-90°	37.7	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°	607.5	26.6
0°-40°	992.0	43.4
0°-60°	1763.8	77.2
0°-90°	2284.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2284.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	787	787	787	787	787	
5°	786	784	780	785	784	75
15°	750	750	750	760	760	211
25°	680	684	692	709	712	313
35°	585	594	614	636	642	367
45°	477	491	519	548	558	368
55°	361	380	418	450	460	324
65°	243	267	309	340	349	241
75°	127	155	192	196	193	133
85°	26	39	26	15	11	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	786.8	786.8	786.8	786.8	786.8
2.5°	789.9	787.4	781.8	787.4	786.3
5°	786.3	784.3	779.7	785.3	784.3
7.5°	781.2	779.2	775.1	781.8	780.7
10°	772.6	771.6	768.5	776.2	775.6
12.5°	762.4	761.9	760.4	769.0	768.5
15°	749.7	750.2	750.2	760.4	760.4
17.5°	735.4	736.4	738.5	749.7	751.2
20°	718.6	720.6	724.7	737.4	739.5
22.5°	701.3	702.8	708.9	724.2	726.2
25°	679.9	684.0	692.1	709.4	712.5
27.5°	659.5	663.1	674.3	692.1	697.2
30°	635.6	641.2	654.4	673.8	679.4
32.5°	612.7	618.8	634.1	656.5	661.6
35°	585.2	594.3	613.7	636.1	642.2
37.5°	560.2	568.9	590.8	615.2	622.3
40°	532.7	543.4	568.4	594.3	601.5
42.5°	507.2	517.4	544.4	570.9	580.6
45°	476.7	491.0	519.0	548.0	558.2
47.5°	448.7	462.9	495.0	526.1	535.3
50°	420.7	435.9	469.6	501.6	510.8
52.5°	391.6	407.9	444.1	476.2	486.9
55°	361.1	379.9	417.6	450.2	459.9
57.5°	332.1	351.4	391.6	424.7	434.4
60°	303.5	323.4	364.6	396.2	406.4
62.5°	272.0	295.4	338.2	369.2	376.9
65°	243.4	267.4	309.1	340.2	348.9
67.5°	213.4	239.4	281.1	309.6	317.8
70°	184.9	211.9	252.1	278.6	282.1
72.5°	154.3	181.8	222.6	239.4	239.4
75°	126.8	154.8	192.5	195.6	193.0
77.5°	96.8	127.8	152.3	146.2	140.1
80°	69.8	100.3	111.5	100.3	92.2
82.5°	46.9	72.8	67.2	53.5	47.4
85°	26.0	38.7	26.5	14.8	10.7
87.5°	9.7	8.7	2.5	2.5	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)