

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: P312183

Luminaire Tested: **14FCZ2-25-UNV-L83050-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: P312183
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-CP187-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,RIBBED 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

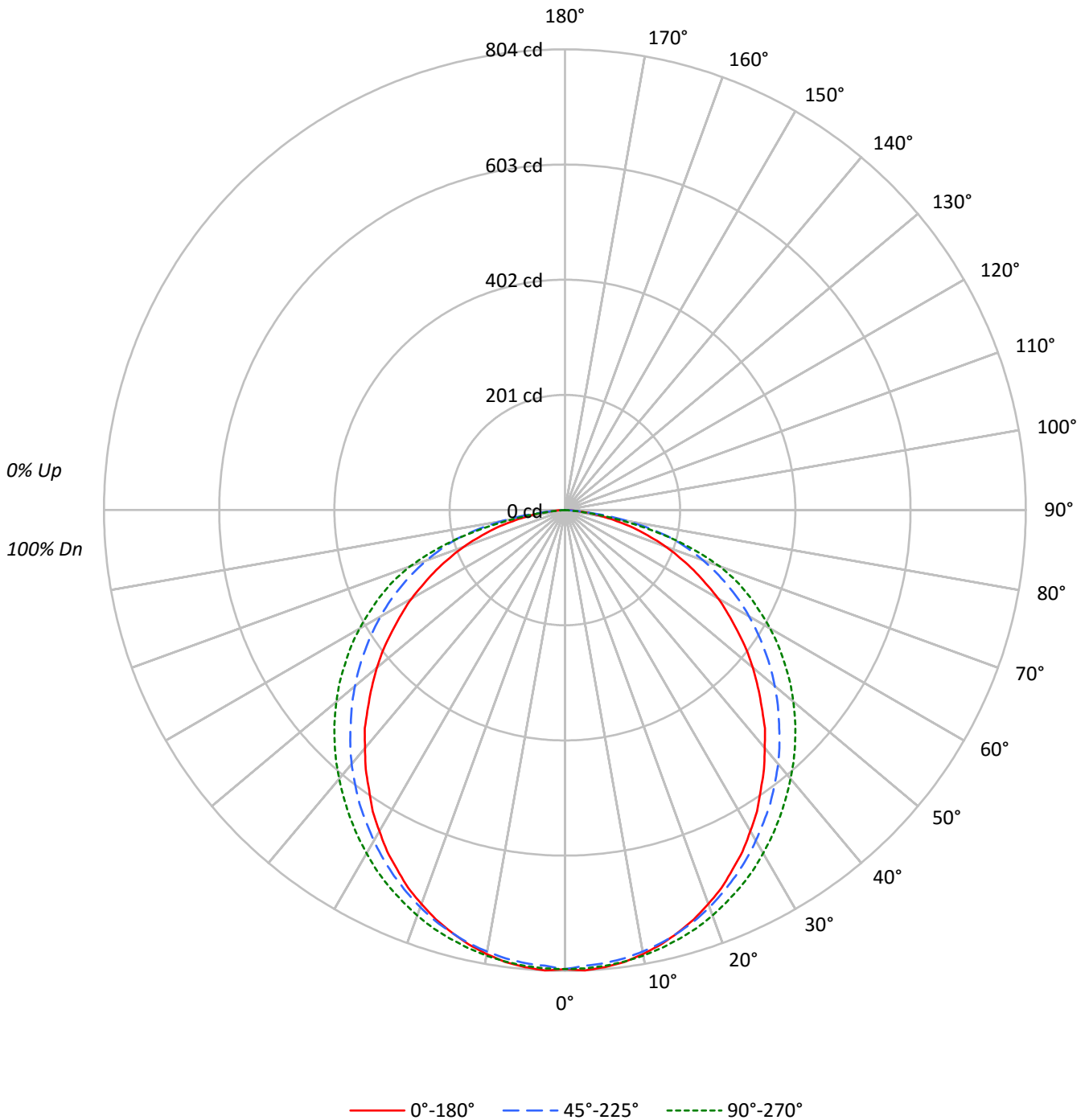
Lumens per Lamp: N/A
Luminaire Lumens: 2325.0 lumens
Efficiency: N/A
Efficacy: 112.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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



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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	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°	2155	2155	2155
5°	2162	2144	2157
10°	2149	2138	2158
15°	2126	2127	2156
20°	2095	2113	2156
25°	2055	2092	2154
30°	2010	2070	2149
35°	1957	2052	2147
40°	1905	2033	2151
45°	1846	2011	2162
50°	1793	2001	2177
55°	1725	1994	2196
60°	1663	1998	2227
65°	1578	2004	2261
70°	1481	2019	2260
75°	1342	2038	2043
80°	1100	1759	1454
85°	815	834	337



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.8	3.3
10°-20°	216.5	9.3
20°-30°	326.2	14.0
30°-40°	391.4	16.8
40°-50°	407.9	17.5
50°-60°	377.7	16.2
60°-70°	305.1	13.1
70°-80°	186.1	8.0
80°-90°	38.4	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°	618.5	26.6
0°-40°	1009.8	43.4
0°-60°	1795.4	77.2
0°-90°	2325.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2325.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	801	801	801	801	801	
5°	800	798	794	799	798	76
15°	763	764	764	774	774	215
25°	692	696	704	722	725	319
35°	596	605	625	648	654	373
45°	485	500	528	558	568	375
55°	368	387	425	458	468	329
65°	248	272	315	346	355	245
75°	129	158	196	199	196	136
85°	26	39	27	15	11	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	801.0	801.0	801.0	801.0	801.0
2.5°	804.1	801.5	795.8	801.5	800.5
5°	800.5	798.4	793.7	799.4	798.4
7.5°	795.3	793.2	789.0	795.8	794.7
10°	786.5	785.4	782.3	790.1	789.6
12.5°	776.1	775.6	774.0	782.8	782.3
15°	763.1	763.6	763.6	774.0	774.0
17.5°	748.6	749.6	751.7	763.1	764.7
20°	731.5	733.6	737.7	750.7	752.8
22.5°	713.9	715.4	721.7	737.2	739.3
25°	692.1	696.2	704.5	722.2	725.3
27.5°	671.4	675.0	686.4	704.5	709.7
30°	647.0	652.7	666.2	685.9	691.6
32.5°	623.7	629.9	645.4	668.3	673.4
35°	595.7	605.0	624.7	647.5	653.7
37.5°	570.3	579.1	601.4	626.3	633.5
40°	542.3	553.2	578.6	605.0	612.3
42.5°	516.4	526.7	554.2	581.2	591.0
45°	485.2	499.8	528.3	557.8	568.2
47.5°	456.7	471.3	503.9	535.5	544.9
50°	428.2	443.8	478.0	510.7	520.0
52.5°	398.7	415.3	452.1	484.7	495.6
55°	367.6	386.7	425.1	458.3	468.1
57.5°	338.0	357.7	398.7	432.4	442.2
60°	309.0	329.2	371.2	403.3	413.7
62.5°	276.8	300.7	344.2	375.9	383.6
65°	247.8	272.2	314.7	346.3	355.1
67.5°	217.2	243.7	286.2	315.2	323.5
70°	188.2	215.7	256.6	283.6	287.2
72.5°	157.1	185.1	226.6	243.7	243.7
75°	129.1	157.6	196.0	199.1	196.5
77.5°	98.5	130.1	155.0	148.8	142.6
80°	71.0	102.1	113.5	102.1	93.8
82.5°	47.7	74.1	68.4	54.4	48.2
85°	26.4	39.4	27.0	15.0	10.9
87.5°	9.9	8.8	2.6	2.6	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)