

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: P312330

Luminaire Tested: **14FCZ2-25-UNV-L83050-S-CP187-W2A-U-3000K**

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: P312330
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-3000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.187" POLYCARB SHEET
Light Source: (168) 3000K 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: 2095.0 lumens
Efficiency: N/A
Efficacy: 106.9 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

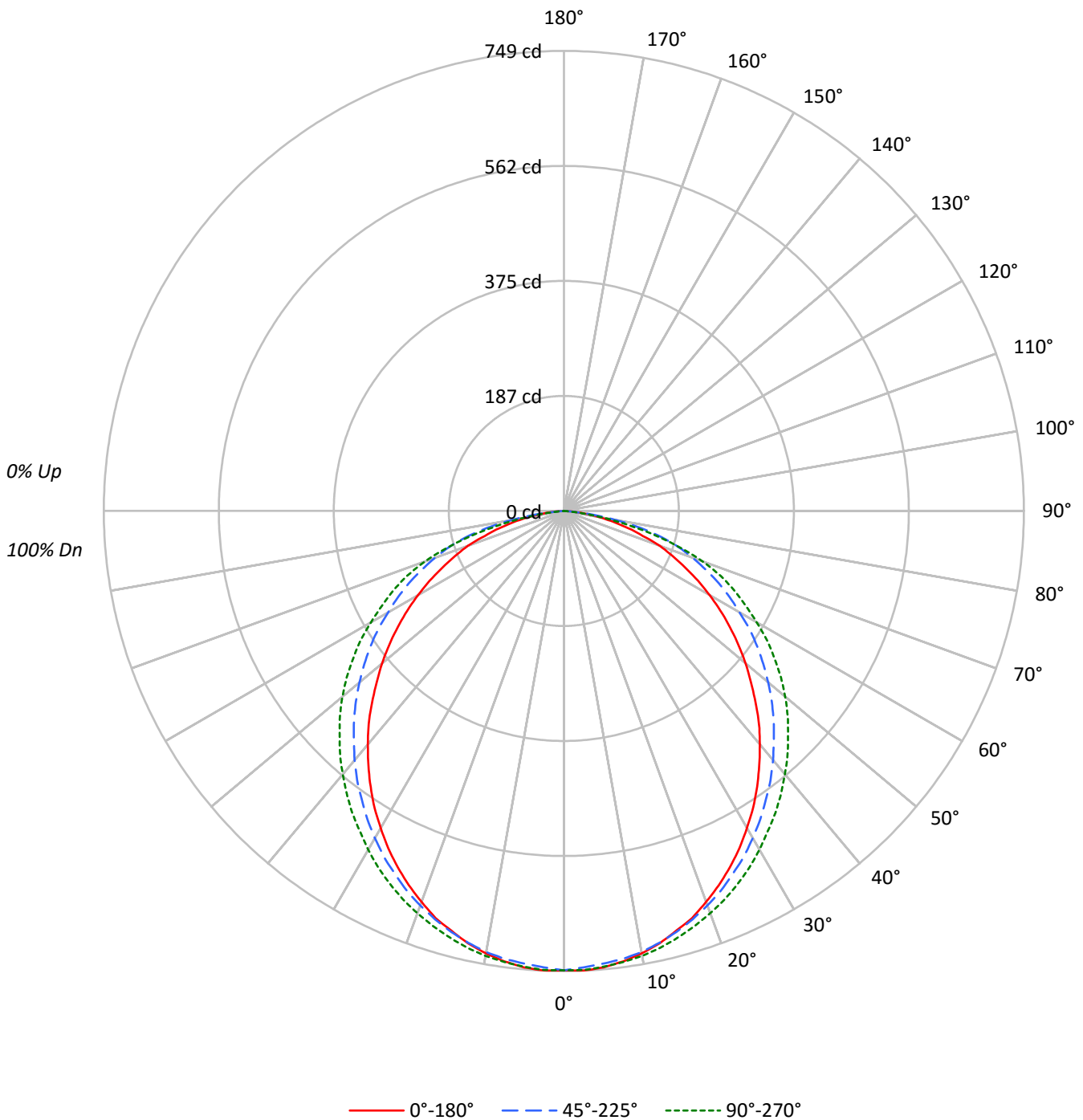
Input Watts (W): 19.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2013	2013	2013
5°	2015	1998	2012
10°	1998	1993	2009
15°	1971	1976	2003
20°	1939	1957	1996
25°	1900	1934	1989
30°	1853	1911	1978
35°	1802	1884	1972
40°	1744	1861	1967
45°	1680	1838	1964
50°	1618	1818	1970
55°	1550	1803	1964
60°	1476	1778	1951
65°	1389	1773	1951
70°	1308	1757	1896
75°	1134	1718	1620
80°	917	1384	1079
85°	608	482	321



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.6	3.4
10°-20°	201.0	9.6
20°-30°	301.4	14.4
30°-40°	359.6	17.2
40°-50°	371.7	17.7
50°-60°	339.4	16.2
60°-70°	267.1	12.7
70°-80°	155.5	7.4
80°-90°	28.6	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°	573.0	27.4
0°-40°	932.6	44.5
0°-60°	1643.8	78.5
0°-90°	2095.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2095.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	748	748	748	748	748	
5°	746	744	740	746	745	71
15°	707	708	709	719	719	200
25°	640	643	651	667	670	295
35°	548	556	573	595	600	343
45°	442	456	483	510	516	341
55°	330	348	384	412	419	295
65°	218	241	278	300	306	217
75°	109	135	165	162	156	116
85°	20	28	16	12	10	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	747.9	747.9	747.9	747.9	747.9
2.5°	748.9	746.8	743.7	748.9	747.9
5°	745.8	743.7	739.6	745.8	744.8
7.5°	739.6	737.5	735.4	741.6	740.6
10°	731.3	730.2	729.2	736.5	735.4
12.5°	720.9	720.9	719.8	728.1	728.1
15°	707.4	708.4	709.4	718.8	718.8
17.5°	694.9	693.9	697.0	707.4	708.4
20°	677.2	679.3	683.5	695.9	697.0
22.5°	659.6	661.7	668.9	681.4	684.5
25°	639.9	643.0	651.3	666.9	670.0
27.5°	619.1	623.2	634.7	651.3	654.4
30°	596.2	602.5	614.9	633.6	636.7
32.5°	573.4	579.6	595.2	613.9	618.0
35°	548.4	555.7	573.4	595.2	600.4
37.5°	522.5	531.8	552.6	574.4	580.6
40°	496.5	506.9	529.7	552.6	559.9
42.5°	470.5	480.9	505.9	531.8	539.1
45°	441.5	456.0	483.0	510.0	516.2
47.5°	413.4	429.0	459.1	486.1	494.4
50°	386.4	402.0	434.2	462.2	470.5
52.5°	358.4	375.0	409.3	438.3	445.6
55°	330.3	348.0	384.3	412.4	418.6
57.5°	302.3	321.0	358.4	385.4	392.6
60°	274.2	294.0	330.3	357.3	362.5
62.5°	246.2	267.0	304.3	328.2	333.4
65°	218.1	241.0	278.4	300.2	306.4
67.5°	191.1	214.0	250.3	271.1	276.3
70°	166.2	187.0	223.3	238.9	241.0
72.5°	135.0	161.0	196.3	204.6	199.4
75°	109.1	135.0	165.2	162.0	155.8
77.5°	83.1	109.1	128.8	118.4	110.1
80°	59.2	85.2	89.3	73.7	69.6
82.5°	38.4	59.2	49.9	38.4	31.2
85°	19.7	28.0	15.6	12.5	10.4
87.5°	6.2	4.2	2.1	2.1	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)