

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: P307595

Luminaire Tested: **14FCZ2-25-UNV-L82765-CP187-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: P307595
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-L82765-CP187-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.187" 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: 2190.0 lumens
Efficiency: N/A
Efficacy: 110.6 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

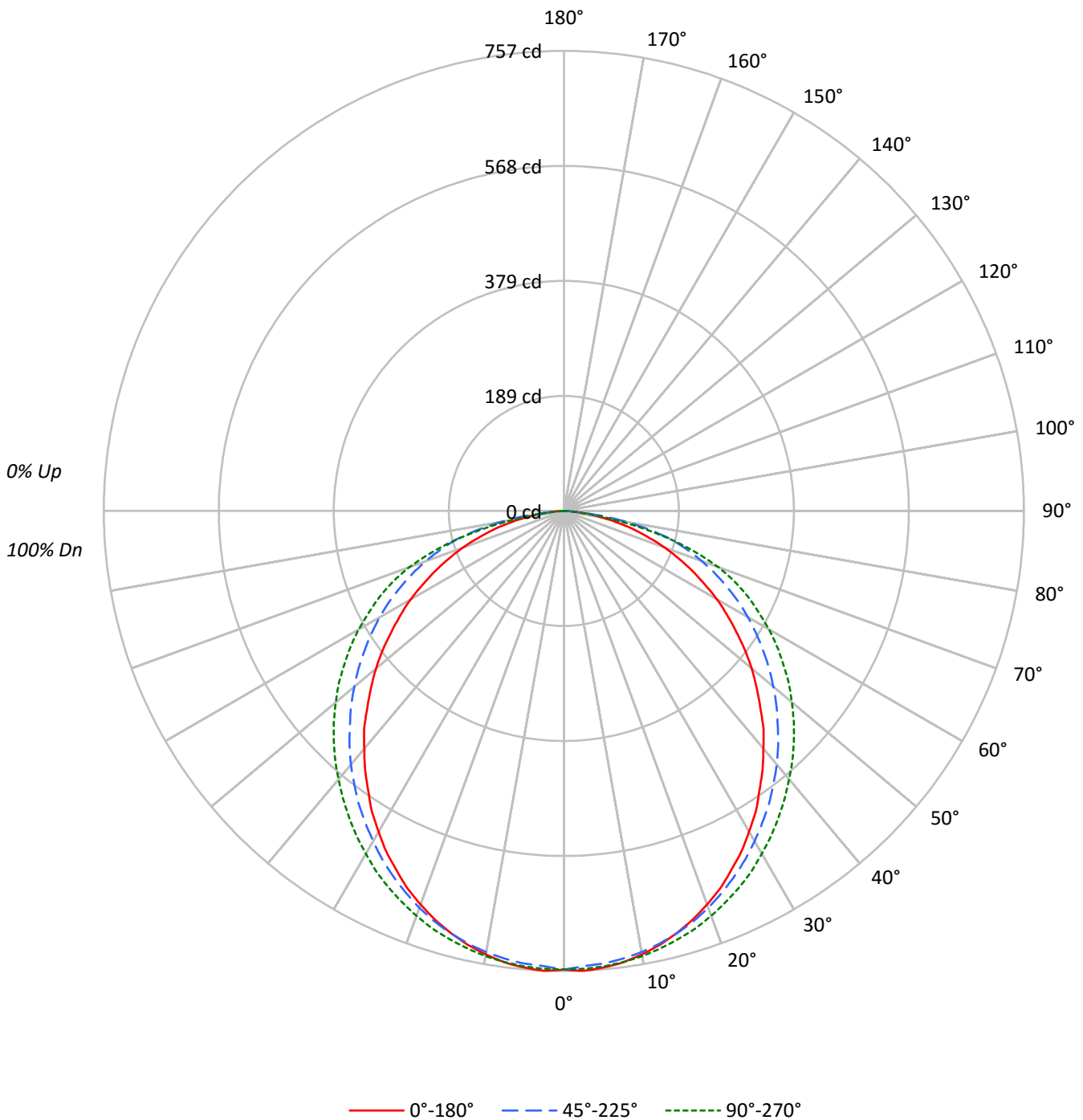
Input Watts (W): 19.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2030	2030	2030
5°	2037	2019	2031
10°	2024	2014	2032
15°	2003	2004	2031
20°	1973	1990	2030
25°	1936	1970	2029
30°	1894	1950	2024
35°	1843	1933	2023
40°	1794	1914	2026
45°	1740	1894	2037
50°	1689	1885	2051
55°	1624	1879	2069
60°	1566	1882	2097
65°	1486	1887	2130
70°	1395	1902	2128
75°	1264	1919	1925
80°	1037	1657	1370
85°	769	784	318



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.4	3.3
10°-20°	203.9	9.3
20°-30°	307.2	14.0
30°-40°	368.7	16.8
40°-50°	384.2	17.5
50°-60°	355.7	16.2
60°-70°	287.4	13.1
70°-80°	175.2	8.0
80°-90°	36.2	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°	582.5	26.6
0°-40°	951.2	43.4
0°-60°	1691.2	77.2
0°-90°	2190.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2190.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	754	754	754	754	754	
5°	754	752	748	753	752	72
15°	719	719	719	729	729	203
25°	652	656	664	680	683	300
35°	561	570	588	610	616	352
45°	457	471	498	525	535	353
55°	346	364	400	432	441	310
65°	233	256	296	326	334	231
75°	122	148	185	188	185	128
85°	25	37	25	14	10	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	754.5	754.5	754.5	754.5	754.5
2.5°	757.4	755.0	749.6	755.0	754.0
5°	754.0	752.0	747.6	753.0	752.0
7.5°	749.1	747.1	743.2	749.6	748.6
10°	740.8	739.8	736.9	744.2	743.7
12.5°	731.0	730.5	729.1	737.4	736.9
15°	718.8	719.3	719.3	729.1	729.1
17.5°	705.1	706.1	708.1	718.8	720.3
20°	689.0	691.0	694.9	707.1	709.0
22.5°	672.4	673.9	679.7	694.4	696.4
25°	651.9	655.8	663.6	680.2	683.2
27.5°	632.4	635.8	646.5	663.6	668.5
30°	609.4	614.8	627.5	646.1	651.4
32.5°	587.5	593.3	608.0	629.5	634.3
35°	561.1	569.9	588.4	609.9	615.8
37.5°	537.2	545.5	566.5	589.9	596.7
40°	510.8	521.0	545.0	569.9	576.7
42.5°	486.4	496.1	522.0	547.4	556.7
45°	457.1	470.7	497.6	525.4	535.2
47.5°	430.2	443.9	474.7	504.4	513.2
50°	403.4	418.0	450.2	481.0	489.8
52.5°	375.5	391.1	425.8	456.6	466.8
55°	346.2	364.3	400.4	431.7	441.0
57.5°	318.4	336.9	375.5	407.3	416.5
60°	291.0	310.1	349.6	379.9	389.7
62.5°	260.8	283.2	324.2	354.0	361.4
65°	233.4	256.4	296.4	326.2	334.5
67.5°	204.6	229.5	269.6	296.9	304.7
70°	177.3	203.1	241.7	267.1	270.5
72.5°	148.0	174.3	213.4	229.5	229.5
75°	121.6	148.5	184.6	187.5	185.1
77.5°	92.8	122.6	146.0	140.1	134.3
80°	66.9	96.2	106.9	96.2	88.4
82.5°	44.9	69.8	64.5	51.3	45.4
85°	24.9	37.1	25.4	14.2	10.3
87.5°	9.3	8.3	2.4	2.4	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)