

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: P307458

Luminaire Tested: **14FCZ2-39-UNV-L82765-RDP-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: P307458
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-39-UNV-L82765-RDP-CP187-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 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: 2108.0 lumens
Efficiency: N/A
Efficacy: 63.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

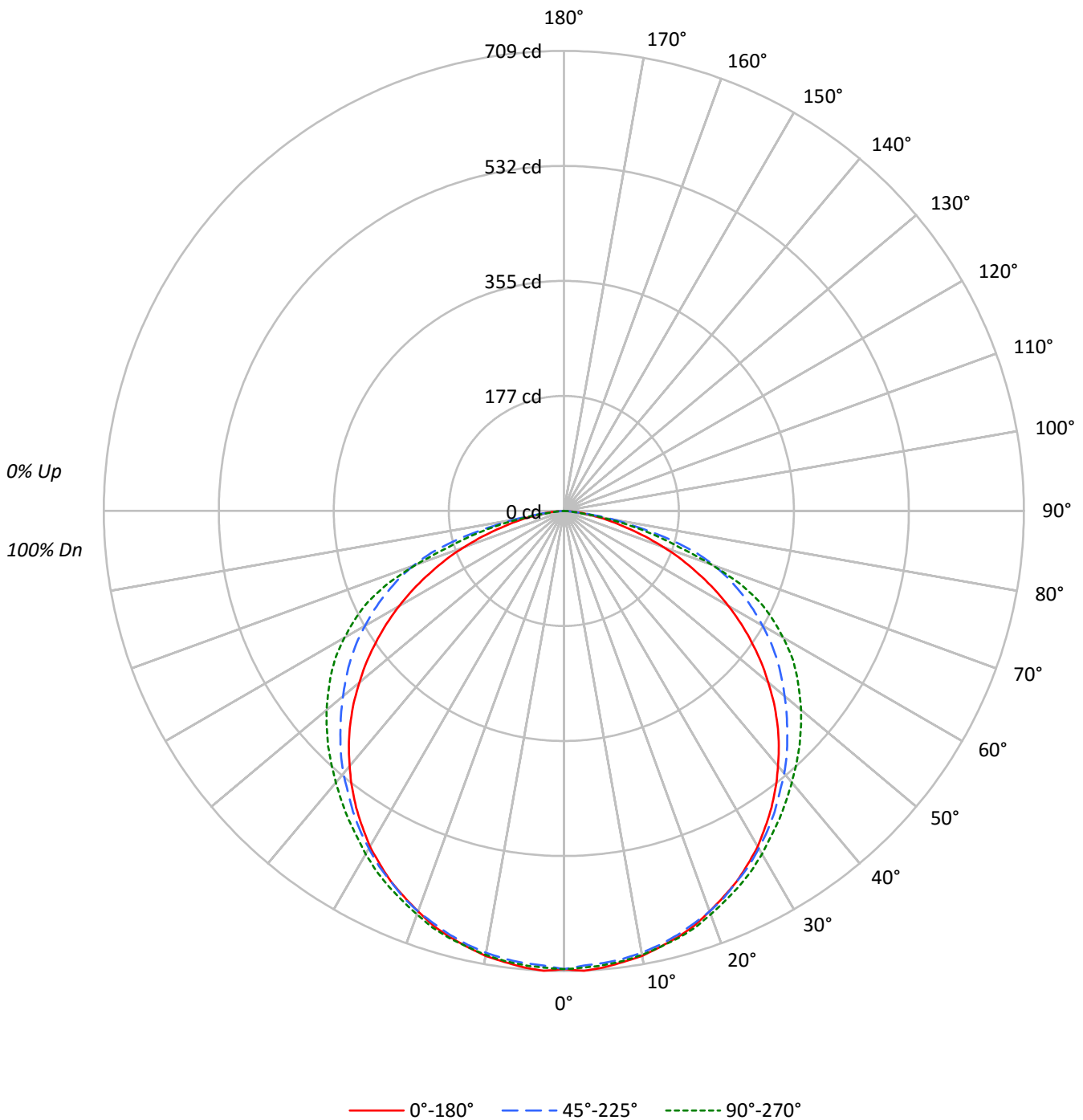
Input Watts (W): 33.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	93	91	88	90	88	86	84
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	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	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1900	1900	1900
5°	1907	1889	1898
10°	1902	1889	1898
15°	1894	1884	1898
20°	1881	1881	1895
25°	1871	1871	1896
30°	1856	1867	1897
35°	1833	1860	1903
40°	1804	1856	1919
45°	1772	1854	1954
50°	1722	1860	1998
55°	1660	1884	2054
60°	1576	1904	2099
65°	1457	1928	2127
70°	1295	1943	1903
75°	1044	1746	1523
80°	817	1224	995
85°	559	355	253



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.8	3.2
10°-20°	191.7	9.1
20°-30°	291.9	13.8
30°-40°	355.6	16.9
40°-50°	377.2	17.9
50°-60°	356.0	16.9
60°-70°	287.5	13.6
70°-80°	155.9	7.4
80°-90°	25.2	1.2
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°	550.5	26.1
0°-40°	906.1	43.0
0°-60°	1639.3	77.8
0°-90°	2108.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2108.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	706	706	706	706	706	
5°	706	704	699	704	703	67
15°	680	678	676	681	681	192
25°	630	629	630	637	638	290
35°	558	561	566	578	579	349
45°	466	472	487	505	514	359
55°	354	369	402	428	438	316
65°	229	257	303	328	334	227
75°	100	146	168	151	146	110
85°	18	20	12	10	8	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	706.0	706.0	706.0	706.0	706.0
2.5°	709.3	706.0	701.1	706.0	704.4
5°	706.0	704.4	699.4	704.4	702.7
7.5°	701.1	701.1	696.1	699.4	699.4
10°	696.1	694.5	691.2	696.1	694.5
12.5°	687.9	686.3	684.6	689.6	687.9
15°	679.7	678.0	676.4	681.3	681.3
17.5°	669.8	668.2	666.5	673.1	673.1
20°	656.7	656.7	656.7	663.2	661.6
22.5°	643.5	643.5	645.1	651.7	650.1
25°	630.3	628.7	630.3	636.9	638.5
27.5°	613.9	615.5	617.2	623.7	625.4
30°	597.4	599.0	600.7	608.9	610.6
32.5°	577.7	580.9	584.2	594.1	594.1
35°	557.9	561.2	566.1	577.7	579.3
37.5°	536.5	539.8	546.4	559.6	562.8
40°	513.5	518.4	528.3	541.4	546.4
42.5°	490.4	497.0	508.5	523.3	529.9
45°	465.7	472.3	487.1	505.2	513.5
47.5°	439.4	447.6	465.7	488.8	495.4
50°	411.4	423.0	444.4	469.0	477.3
52.5°	383.5	396.6	423.0	449.3	457.5
55°	353.8	368.6	401.6	427.9	437.8
57.5°	324.2	340.7	378.5	406.5	416.4
60°	292.9	312.7	353.8	381.8	390.0
62.5°	261.7	284.7	329.1	357.1	363.7
65°	228.8	256.7	302.8	327.5	334.1
67.5°	197.5	230.4	276.5	294.6	294.6
70°	164.6	200.8	246.9	251.8	241.9
72.5°	131.7	172.8	213.9	195.8	187.6
75°	100.4	146.5	167.9	151.4	146.5
77.5°	75.7	118.5	118.5	108.6	105.3
80°	52.7	90.5	79.0	69.1	64.2
82.5°	34.6	51.0	41.1	32.9	28.0
85°	18.1	19.7	11.5	9.9	8.2
87.5°	6.6	3.3	1.6	3.3	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)