

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: P312131

Luminaire Tested: **14FCZ2-44-UNV-L83050-RDP-CP187-W2A-U-3500K**

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: P312131
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: 14FCZ2-44-UNV-L83050-RDP-CP187-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.187" POLYCARB SHEET
Light Source: (168) 3500K 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: 2496.0 lumens
Efficiency: N/A
Efficacy: 65.2 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

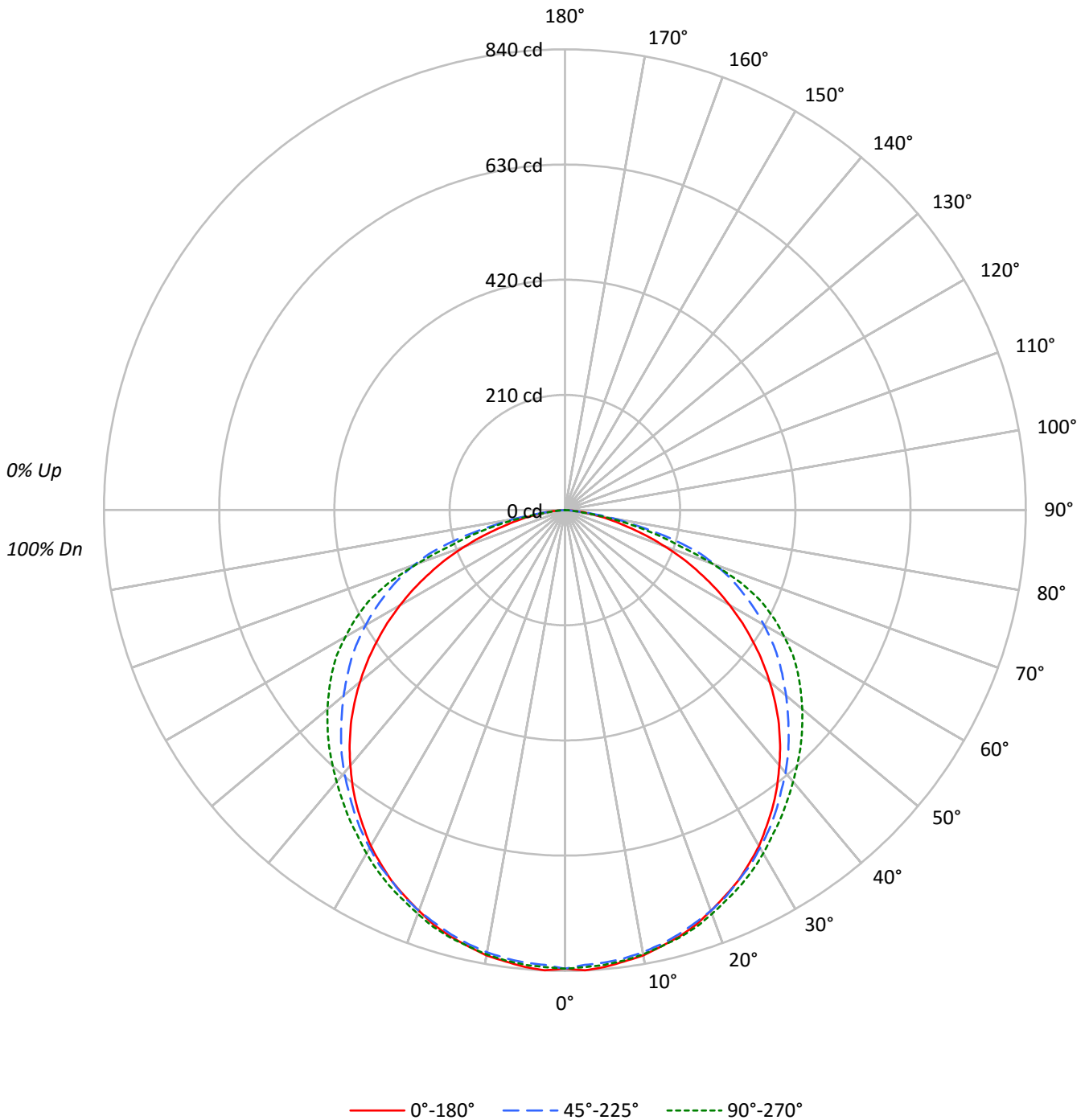
Input Watts (W): 38.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2250	2250	2250
5°	2258	2237	2248
10°	2252	2236	2247
15°	2242	2231	2247
20°	2227	2227	2243
25°	2216	2216	2245
30°	2198	2210	2247
35°	2170	2202	2253
40°	2136	2197	2273
45°	2099	2195	2314
50°	2040	2202	2366
55°	1966	2231	2432
60°	1867	2255	2485
65°	1725	2283	2519
70°	1533	2300	2254
75°	1236	2067	1803
80°	967	1449	1178
85°	661	420	299



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.1	3.2
10°-20°	227.0	9.1
20°-30°	345.7	13.8
30°-40°	421.0	16.9
40°-50°	446.7	17.9
50°-60°	421.6	16.9
60°-70°	340.4	13.6
70°-80°	184.6	7.4
80°-90°	29.9	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°	651.8	26.1
0°-40°	1072.8	43.0
0°-60°	1941.1	77.8
0°-90°	2496.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2496.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	836	836	836	836	836	
5°	836	834	828	834	832	79
15°	805	803	801	807	807	227
25°	746	744	746	754	756	344
35°	661	664	670	684	686	413
45°	552	559	577	598	608	425
55°	419	436	476	507	518	374
65°	271	304	359	388	396	268
75°	119	173	199	179	173	130
85°	21	23	14	12	10	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	836.0	836.0	836.0	836.0	836.0
2.5°	839.9	836.0	830.1	836.0	834.0
5°	836.0	834.0	828.2	834.0	832.1
7.5°	830.1	830.1	824.3	828.2	828.2
10°	824.3	822.3	818.4	824.3	822.3
12.5°	814.5	812.6	810.6	816.5	814.5
15°	804.8	802.8	800.9	806.7	806.7
17.5°	793.1	791.2	789.2	797.0	797.0
20°	777.5	777.5	777.5	785.3	783.4
22.5°	761.9	761.9	763.9	771.7	769.7
25°	746.3	744.4	746.3	754.1	756.1
27.5°	726.8	728.8	730.7	738.5	740.5
30°	707.4	709.3	711.3	721.0	723.0
32.5°	684.0	687.9	691.8	703.5	703.5
35°	660.6	664.5	670.3	684.0	685.9
37.5°	635.3	639.2	647.0	662.5	666.4
40°	608.0	613.8	625.5	641.1	647.0
42.5°	580.7	588.5	602.1	619.7	627.5
45°	551.5	559.3	576.8	598.2	608.0
47.5°	520.3	530.0	551.5	578.8	586.5
50°	487.2	500.8	526.1	555.4	565.1
52.5°	454.0	469.6	500.8	532.0	541.7
55°	419.0	436.5	475.5	506.7	518.3
57.5°	383.9	403.4	448.2	481.3	493.0
60°	346.9	370.2	419.0	452.1	461.8
62.5°	309.8	337.1	389.7	422.9	430.7
65°	270.9	304.0	358.6	387.8	395.6
67.5°	233.8	272.8	327.4	348.8	348.8
70°	194.9	237.7	292.3	298.1	286.5
72.5°	155.9	204.6	253.3	231.9	222.1
75°	118.9	173.4	198.8	179.3	173.4
77.5°	89.6	140.3	140.3	128.6	124.7
80°	62.4	107.2	93.5	81.8	76.0
82.5°	40.9	60.4	48.7	39.0	33.1
85°	21.4	23.4	13.6	11.7	9.7
87.5°	7.8	3.9	1.9	3.9	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)