

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: P312130

Luminaire Tested: **14FCZ2-44-UNV-L83050-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: P312130
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-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: 2358.0 lumens
Efficiency: N/A
Efficacy: 61.7 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

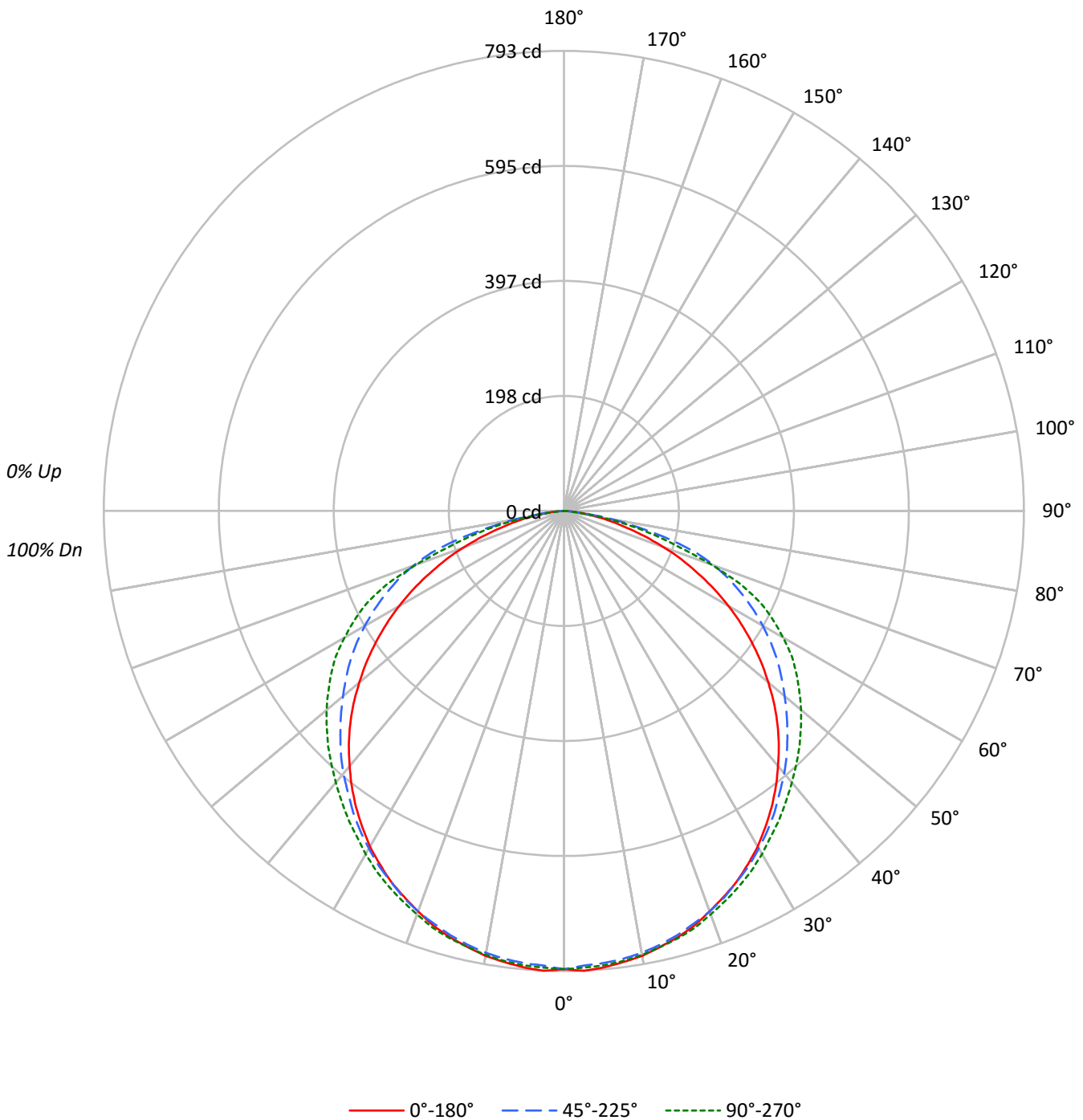
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2125	2125	2125
5°	2133	2113	2123
10°	2128	2113	2123
15°	2118	2108	2123
20°	2103	2103	2119
25°	2094	2094	2121
30°	2077	2088	2122
35°	2050	2080	2129
40°	2018	2076	2147
45°	1983	2074	2186
50°	1927	2081	2235
55°	1857	2107	2297
60°	1764	2130	2348
65°	1629	2157	2379
70°	1448	2172	2129
75°	1168	1953	1703
80°	913	1370	1113
85°	627	398	284



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.8	3.2
10°-20°	214.5	9.1
20°-30°	326.6	13.8
30°-40°	397.8	16.9
40°-50°	422.0	17.9
50°-60°	398.3	16.9
60°-70°	321.6	13.6
70°-80°	174.4	7.4
80°-90°	28.2	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°	615.8	26.1
0°-40°	1013.5	43.0
0°-60°	1833.8	77.8
0°-90°	2358.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2358.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	790	790	790	790	790	
5°	790	788	782	788	786	75
15°	760	758	757	762	762	215
25°	705	703	705	712	714	325
35°	624	628	633	646	648	390
45°	521	528	545	565	574	401
55°	396	412	449	479	490	354
65°	256	287	339	366	374	254
75°	112	164	188	169	164	123
85°	20	22	13	11	9	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	789.8	789.8	789.8	789.8	789.8
2.5°	793.4	789.8	784.2	789.8	787.9
5°	789.8	787.9	782.4	787.9	786.1
7.5°	784.2	784.2	778.7	782.4	782.4
10°	778.7	776.9	773.2	778.7	776.9
12.5°	769.5	767.7	765.8	771.3	769.5
15°	760.3	758.5	756.6	762.1	762.1
17.5°	749.3	747.4	745.6	752.9	752.9
20°	734.5	734.5	734.5	741.9	740.0
22.5°	719.8	719.8	721.6	729.0	727.2
25°	705.1	703.2	705.1	712.4	714.3
27.5°	686.7	688.5	690.3	697.7	699.5
30°	668.3	670.1	671.9	681.1	683.0
32.5°	646.2	649.8	653.5	664.6	664.6
35°	624.1	627.8	633.3	646.2	648.0
37.5°	600.1	603.8	611.2	625.9	629.6
40°	574.4	579.9	590.9	605.7	611.2
42.5°	548.6	556.0	568.8	585.4	592.8
45°	521.0	528.3	544.9	565.2	574.4
47.5°	491.5	500.7	521.0	546.8	554.1
50°	460.2	473.1	497.0	524.7	533.9
52.5°	428.9	443.7	473.1	502.6	511.8
55°	395.8	412.4	449.2	478.6	489.7
57.5°	362.7	381.1	423.4	454.7	465.8
60°	327.7	349.8	395.8	427.1	436.3
62.5°	292.7	318.5	368.2	399.5	406.8
65°	255.9	287.2	338.7	366.3	373.7
67.5°	220.9	257.7	309.3	329.5	329.5
70°	184.1	224.6	276.1	281.7	270.6
72.5°	147.3	193.3	239.3	219.1	209.9
75°	112.3	163.8	187.8	169.4	163.8
77.5°	84.7	132.5	132.5	121.5	117.8
80°	58.9	101.3	88.4	77.3	71.8
82.5°	38.7	57.1	46.0	36.8	31.3
85°	20.3	22.1	12.9	11.0	9.2
87.5°	7.4	3.7	1.8	3.7	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)