

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: P311955

Luminaire Tested: **14FCZ2-39-UNV-L83050-HRP-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: P311955
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
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-L83050-HRP-CP187-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. 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: 2494.0 lumens
Efficiency: N/A
Efficacy: 75.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

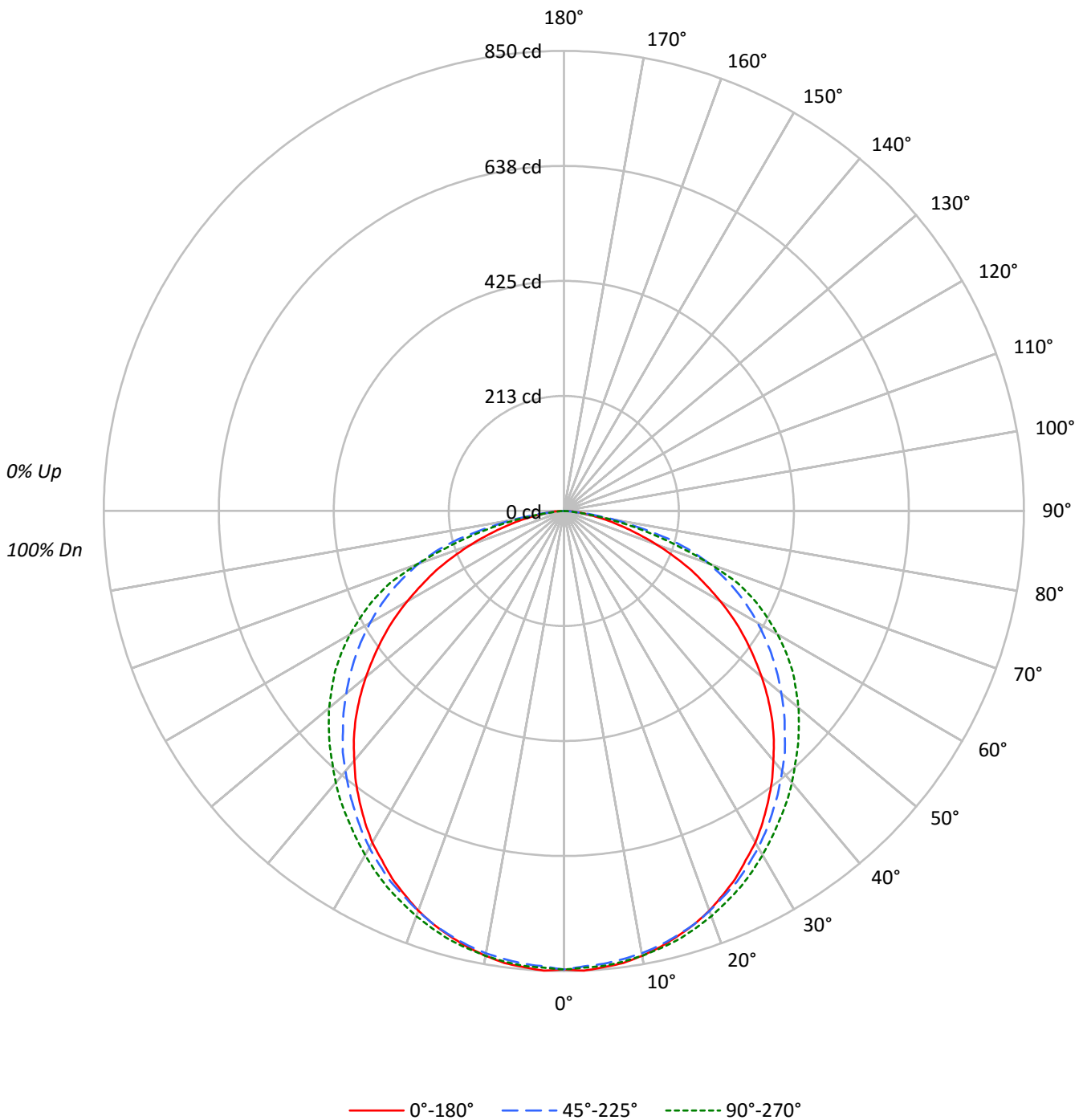
Input Watts (W): 33.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	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	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2279	2279	2279
5°	2286	2269	2279
10°	2280	2267	2280
15°	2266	2261	2283
20°	2250	2253	2282
25°	2226	2245	2282
30°	2198	2232	2281
35°	2159	2215	2285
40°	2116	2204	2303
45°	2071	2197	2328
50°	1999	2197	2370
55°	1913	2207	2421
60°	1798	2224	2452
65°	1658	2247	2467
70°	1444	2252	2271
75°	1190	2095	1835
80°	936	1506	1227
85°	726	580	290



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.2	3.2
10°-20°	230.1	9.2
20°-30°	349.4	14.0
30°-40°	423.4	17.0
40°-50°	446.1	17.9
50°-60°	416.5	16.7
60°-70°	332.8	13.3
70°-80°	183.1	7.3
80°-90°	32.3	1.3
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°	659.7	26.5
0°-40°	1083.1	43.4
0°-60°	1945.7	78.0
0°-90°	2494.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2494.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	847	847	847	847	847	
5°	846	844	840	845	844	80
15°	813	813	812	820	820	230
25°	750	751	756	767	769	345
35°	657	664	674	692	696	411
45°	544	554	577	603	612	419
55°	408	428	470	504	516	364
65°	260	293	353	382	387	256
75°	114	164	202	181	176	123
85°	24	30	19	12	9	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	847.0	847.0	847.0	847.0	847.0
2.5°	850.1	847.8	842.3	847.0	844.6
5°	846.2	843.8	839.9	845.4	843.8
7.5°	842.3	839.1	835.2	841.5	839.9
10°	834.4	832.1	829.7	835.2	834.4
12.5°	825.0	824.2	821.9	828.2	827.4
15°	813.3	813.3	811.7	819.5	819.5
17.5°	800.7	799.9	800.7	809.3	808.5
20°	785.8	785.8	786.6	796.8	796.8
22.5°	767.8	768.6	770.9	783.5	782.7
25°	749.7	751.3	756.0	767.0	768.6
27.5°	727.8	731.7	737.2	750.5	752.1
30°	707.4	709.7	718.4	730.9	734.0
32.5°	683.1	687.8	697.2	711.3	715.2
35°	657.2	663.5	674.4	691.7	695.6
37.5°	631.3	636.8	651.7	669.7	676.8
40°	602.3	611.7	627.4	647.8	655.6
42.5°	574.1	583.5	604.6	625.8	632.9
45°	544.3	554.5	577.2	603.1	611.7
47.5°	511.3	523.1	552.1	579.6	589.0
50°	477.6	492.5	524.7	555.2	566.2
52.5°	442.3	461.1	498.0	530.1	540.3
55°	407.8	428.2	470.5	503.5	516.0
57.5°	372.5	394.5	442.3	480.0	487.0
60°	334.1	360.7	413.3	446.2	455.6
62.5°	296.4	327.0	383.5	414.9	422.7
65°	260.4	293.3	352.9	381.9	387.4
67.5°	221.2	260.4	319.2	345.8	347.4
70°	183.5	229.0	286.2	298.8	288.6
72.5°	146.7	195.3	247.8	237.6	229.0
75°	114.5	163.9	201.5	181.2	176.5
77.5°	84.7	134.1	144.3	133.3	124.7
80°	60.4	105.9	97.2	83.1	79.2
82.5°	41.6	66.7	53.3	41.6	36.1
85°	23.5	29.8	18.8	11.8	9.4
87.5°	10.2	7.1	3.9	3.1	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)