

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: P311926

Luminaire Tested: **14FCZ2-35-UNV-L83050-HRP-CP125-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: P311926
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: 14FCZ2-35-UNV-L83050-HRP-CP125-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" 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: 2497.0 lumens
Efficiency: N/A
Efficacy: 84.6 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

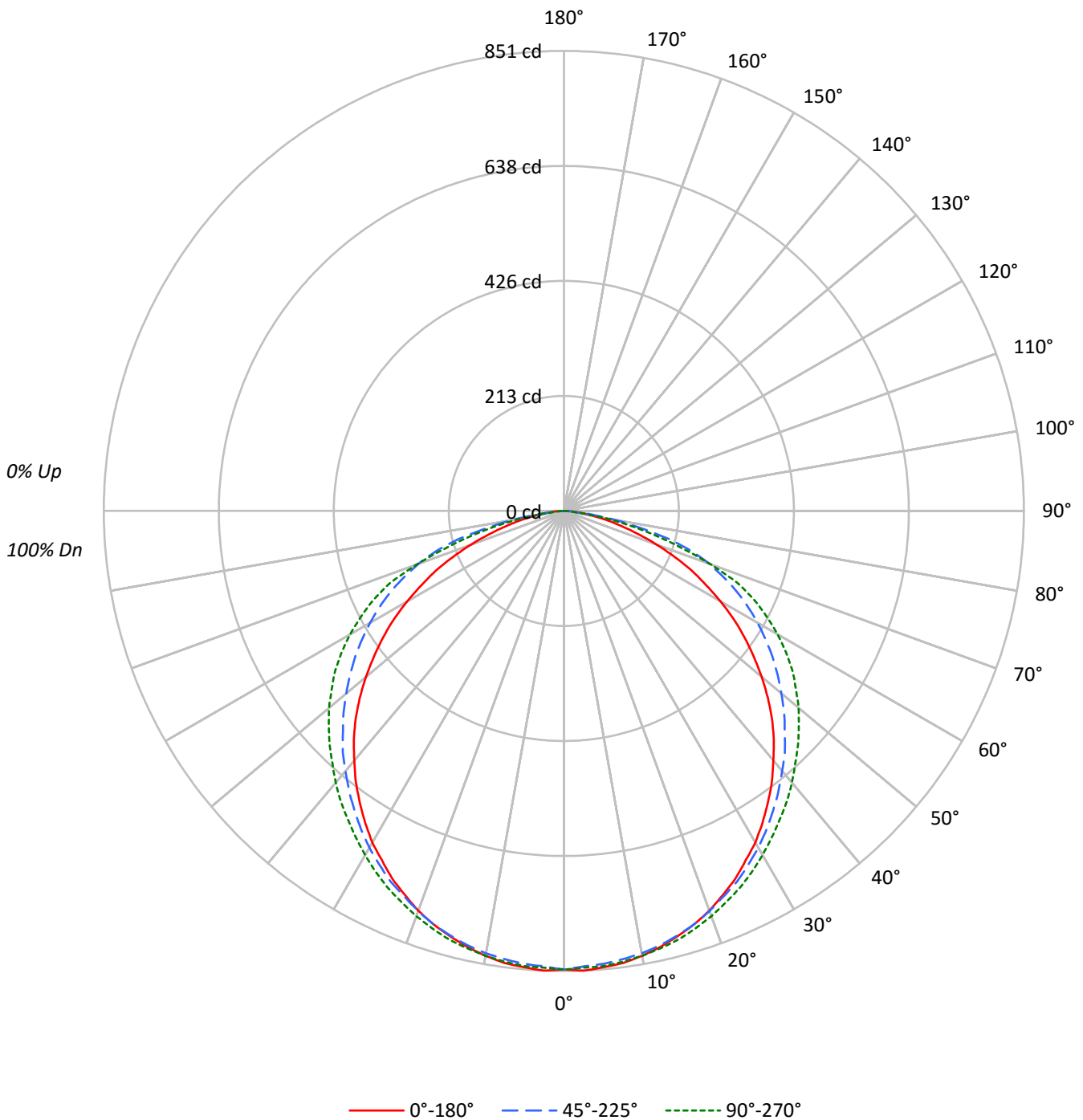
Input Watts (W): 29.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2282	2282	2282
5°	2289	2271	2282
10°	2283	2270	2283
15°	2268	2264	2286
20°	2253	2255	2284
25°	2229	2247	2285
30°	2201	2235	2284
35°	2162	2218	2288
40°	2118	2206	2306
45°	2074	2199	2331
50°	2002	2199	2373
55°	1916	2210	2424
60°	1800	2227	2455
65°	1660	2250	2470
70°	1445	2255	2273
75°	1192	2098	1837
80°	938	1509	1229
85°	729	580	290



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.3	3.2
10°-20°	230.4	9.2
20°-30°	349.8	14.0
30°-40°	423.9	17.0
40°-50°	446.7	17.9
50°-60°	417.0	16.7
60°-70°	333.3	13.3
70°-80°	183.4	7.3
80°-90°	32.4	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°	660.5	26.5
0°-40°	1084.4	43.4
0°-60°	1948.0	78.0
0°-90°	2497.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2497.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	848	848	848	848	848	
5°	847	845	841	846	845	81
15°	814	814	813	820	820	230
25°	751	752	757	768	770	346
35°	658	664	675	692	696	412
45°	545	555	578	604	612	419
55°	408	429	471	504	517	364
65°	261	294	353	382	388	257
75°	115	164	202	181	177	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°	848.0	848.0	848.0	848.0	848.0
2.5°	851.1	848.8	843.3	848.0	845.6
5°	847.2	844.9	840.9	846.4	844.9
7.5°	843.3	840.1	836.2	842.5	840.9
10°	835.4	833.1	830.7	836.2	835.4
12.5°	826.0	825.2	822.9	829.1	828.4
15°	814.2	814.2	812.7	820.5	820.5
17.5°	801.7	800.9	801.7	810.3	809.5
20°	786.7	786.7	787.5	797.7	797.7
22.5°	768.7	769.5	771.8	784.4	783.6
25°	750.6	752.2	756.9	767.9	769.5
27.5°	728.6	732.6	738.1	751.4	753.0
30°	708.2	710.6	719.2	731.8	734.9
32.5°	683.9	688.6	698.0	712.2	716.1
35°	658.0	664.3	675.3	692.5	696.5
37.5°	632.1	637.6	652.5	670.5	677.6
40°	603.0	612.4	628.1	648.6	656.4
42.5°	574.8	584.2	605.4	626.6	633.6
45°	544.9	555.1	577.9	603.8	612.4
47.5°	511.9	523.7	552.8	580.2	589.7
50°	478.2	493.1	525.3	555.9	566.9
52.5°	442.8	461.7	498.6	530.8	541.0
55°	408.3	428.7	471.1	504.1	516.6
57.5°	373.0	394.9	442.8	480.5	487.6
60°	334.5	361.2	413.8	446.8	456.2
62.5°	296.8	327.4	384.0	415.4	423.2
65°	260.7	293.7	353.3	382.4	387.9
67.5°	221.4	260.7	319.6	346.3	347.8
70°	183.7	229.3	286.6	299.2	288.9
72.5°	146.8	195.5	248.1	237.9	229.3
75°	114.6	164.1	201.8	181.4	176.7
77.5°	84.8	134.3	144.5	133.5	124.8
80°	60.5	106.0	97.4	83.2	79.3
82.5°	41.6	66.7	53.4	41.6	36.1
85°	23.6	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)