

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: P307147

Luminaire Tested: **14FCZ2-35-UNV-L82765-HRP-CP187-W2A-U-5000K**

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: P307147
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-L82765-HRP-CP187-W2A-U-5000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"
POLYCARB SHEET
Light Source: (168) 5000K 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: 2462.0 lumens
Efficiency: N/A
Efficacy: 81.5 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

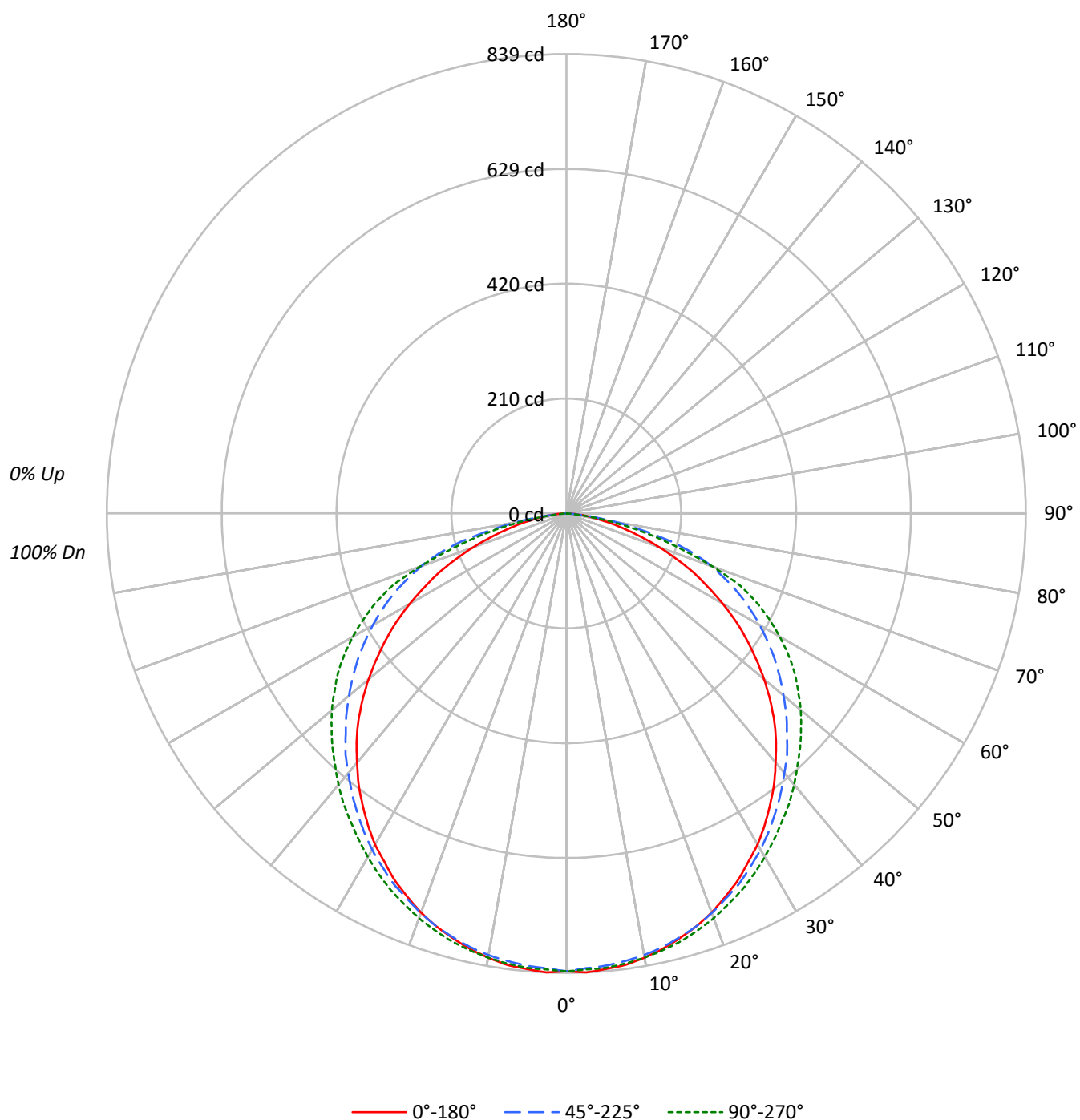
Input Watts (W): 30.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	109	104	100	96	106	102	98	94	97	94	91		93	91	88		84
2	99	90	83	78	96	88	82	77	85	79	75		82	77	73		69
3	90	79	71	64	87	77	70	64	74	68	62		72	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		64	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	69	56	47	40	68	55	46	40	53	45	40		51	45	39		37
7	64	51	42	36	63	50	41	35	48	41	35		47	40	35		33
8	60	46	38	32	58	45	37	32	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	38	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2250	2250	2250
5°	2256	2240	2250
10°	2251	2238	2251
15°	2237	2232	2254
20°	2221	2224	2253
25°	2197	2216	2253
30°	2170	2203	2252
35°	2131	2187	2256
40°	2089	2175	2273
45°	2045	2168	2298
50°	1974	2168	2340
55°	1889	2179	2390
60°	1775	2196	2421
65°	1636	2218	2435
70°	1426	2223	2242
75°	1175	2069	1811
80°	924	1488	1212
85°	716	574	287



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.2	3.2
10°-20°	227.1	9.2
20°-30°	344.9	14.0
30°-40°	417.9	17.0
40°-50°	440.4	17.9
50°-60°	411.1	16.7
60°-70°	328.6	13.3
70°-80°	180.8	7.3
80°-90°	31.9	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°	651.2	26.5
0°-40°	1069.1	43.4
0°-60°	1920.7	78.0
0°-90°	2462.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2462.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	836	836	836	836	836	
5°	835	833	829	835	833	79
15°	803	803	801	809	809	227
25°	740	742	746	757	759	341
35°	649	655	666	683	687	406
45°	537	547	570	595	604	413
55°	403	423	464	497	509	359
65°	257	290	348	377	382	253
75°	113	162	199	179	174	122
85°	23	29	19	12	9	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	836.1	836.1	836.1	836.1	836.1
2.5°	839.2	836.9	831.5	836.1	833.8
5°	835.3	833.0	829.1	834.6	833.0
7.5°	831.5	828.4	824.5	830.7	829.1
10°	823.7	821.4	819.1	824.5	823.7
12.5°	814.4	813.7	811.3	817.5	816.8
15°	802.8	802.8	801.3	809.0	809.0
17.5°	790.4	789.7	790.4	798.9	798.2
20°	775.7	775.7	776.5	786.6	786.6
22.5°	757.9	758.7	761.0	773.4	772.6
25°	740.1	741.7	746.3	757.1	758.7
27.5°	718.4	722.3	727.7	740.9	742.4
30°	698.3	700.6	709.1	721.5	724.6
32.5°	674.3	679.0	688.2	702.2	706.0
35°	648.8	655.0	665.8	682.8	686.7
37.5°	623.2	628.6	643.3	661.1	668.1
40°	594.6	603.9	619.3	639.5	647.2
42.5°	566.7	576.0	596.9	617.8	624.8
45°	537.3	547.3	569.8	595.3	603.9
47.5°	504.8	516.4	545.0	572.1	581.4
50°	471.5	486.2	517.9	548.1	559.0
52.5°	436.6	455.2	491.6	523.3	533.4
55°	402.6	422.7	464.5	497.0	509.4
57.5°	367.7	389.4	436.6	473.8	480.8
60°	329.8	356.1	408.0	440.5	449.8
62.5°	292.6	322.8	378.6	409.5	417.3
65°	257.0	289.5	348.4	377.0	382.4
67.5°	218.3	257.0	315.1	341.4	343.0
70°	181.2	226.1	282.6	295.0	284.9
72.5°	144.8	192.8	244.6	234.6	226.1
75°	113.0	161.8	199.0	178.8	174.2
77.5°	83.6	132.4	142.4	131.6	123.1
80°	59.6	104.5	96.0	82.1	78.2
82.5°	41.0	65.8	52.6	41.0	35.6
85°	23.2	29.4	18.6	11.6	9.3
87.5°	10.1	7.0	3.9	3.1	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)