

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: P307189

Luminaire Tested: **14FCZ2-39-UNV-L82765-HRP-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: P307189
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-L82765-HRP-CP187-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 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: 2577.0 lumens
Efficiency: N/A
Efficacy: 76.9 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

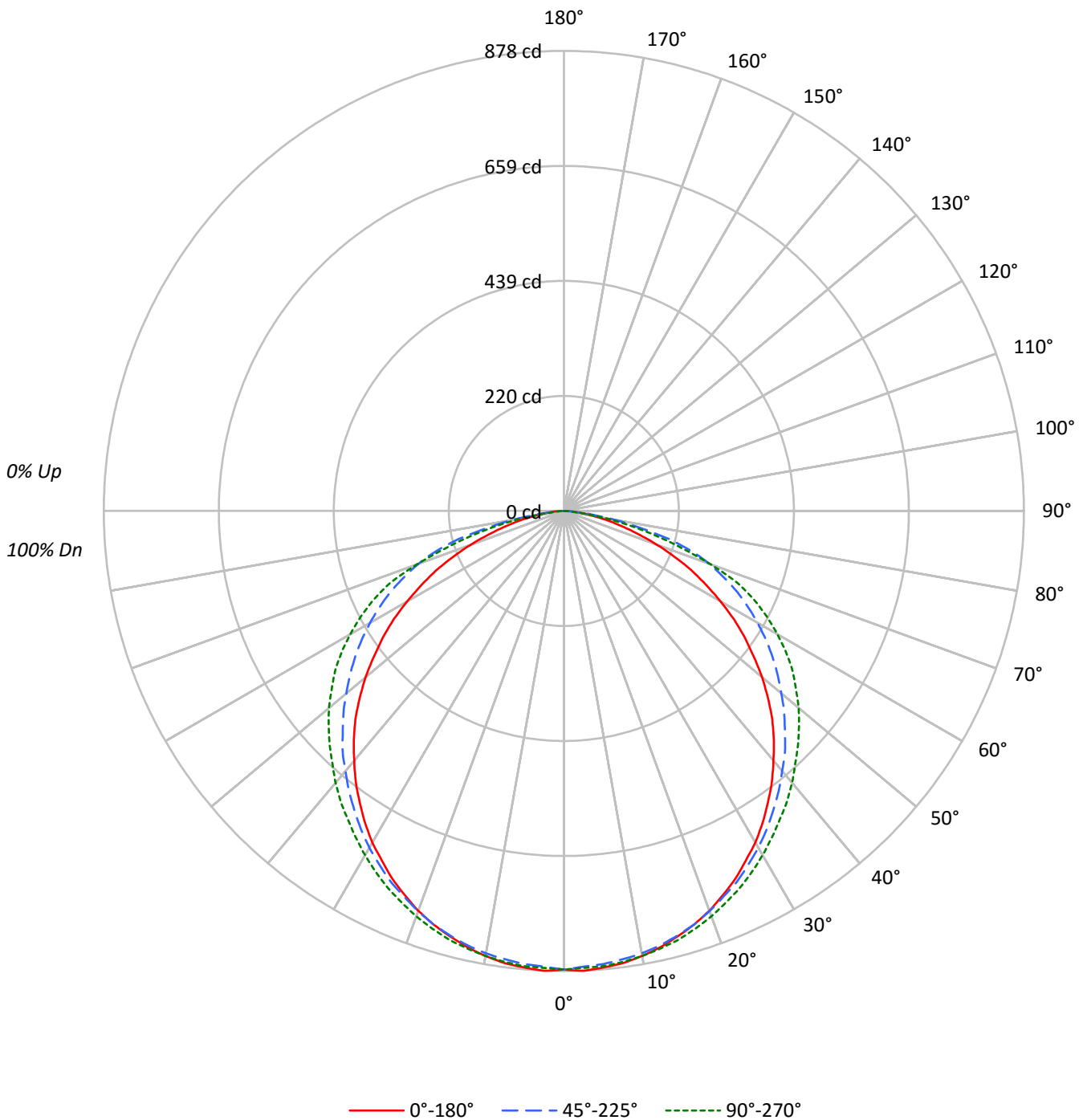
Input Watts (W): 33.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2355	2355	2355
5°	2362	2344	2355
10°	2356	2343	2356
15°	2341	2337	2359
20°	2325	2328	2358
25°	2300	2320	2358
30°	2271	2307	2357
35°	2231	2289	2361
40°	2186	2277	2380
45°	2140	2270	2406
50°	2066	2269	2449
55°	1977	2281	2502
60°	1858	2298	2534
65°	1713	2322	2549
70°	1492	2327	2346
75°	1230	2166	1895
80°	967	1557	1268
85°	750	599	299



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.9	3.2
10°-20°	237.7	9.2
20°-30°	361.0	14.0
30°-40°	437.5	17.0
40°-50°	461.0	17.9
50°-60°	430.4	16.7
60°-70°	343.9	13.3
70°-80°	189.2	7.3
80°-90°	33.4	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°	681.6	26.5
0°-40°	1119.1	43.4
0°-60°	2010.4	78.0
0°-90°	2577.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2577.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	875	875	875	875	875	
5°	874	872	868	874	872	83
15°	840	840	839	847	847	237
25°	775	776	781	792	794	357
35°	679	686	697	715	719	425
45°	562	573	596	623	632	433
55°	421	442	486	520	533	376
65°	269	303	365	395	400	265
75°	118	169	208	187	182	127
85°	24	31	19	12	10	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	875.2	875.2	875.2	875.2	875.2
2.5°	878.4	876.0	870.3	875.2	872.7
5°	874.4	871.9	867.9	873.5	871.9
7.5°	870.3	867.1	863.0	869.5	867.9
10°	862.2	859.8	857.3	863.0	862.2
12.5°	852.5	851.7	849.2	855.7	854.9
15°	840.3	840.3	838.7	846.8	846.8
17.5°	827.4	826.5	827.4	836.3	835.5
20°	812.0	812.0	812.8	823.3	823.3
22.5°	793.3	794.1	796.6	809.5	808.7
25°	774.7	776.3	781.2	792.5	794.1
27.5°	752.0	756.0	761.7	775.5	777.1
30°	730.9	733.4	742.3	755.2	758.5
32.5°	705.8	710.7	720.4	735.0	739.0
35°	679.1	685.5	696.9	714.7	718.8
37.5°	652.3	658.0	673.4	692.0	699.3
40°	622.3	632.1	648.3	669.3	677.4
42.5°	593.2	602.9	624.8	646.6	653.9
45°	562.4	572.9	596.4	623.1	632.1
47.5°	528.3	540.5	570.5	598.8	608.6
50°	493.5	508.9	542.1	573.7	585.1
52.5°	457.0	476.5	514.6	547.8	558.3
55°	421.4	442.4	486.2	520.2	533.2
57.5°	384.9	407.6	457.0	495.9	503.2
60°	345.2	372.8	427.0	461.1	470.8
62.5°	306.3	337.9	396.3	428.7	436.8
65°	269.0	303.1	364.7	394.6	400.3
67.5°	228.5	269.0	329.8	357.4	359.0
70°	189.6	236.6	295.8	308.7	298.2
72.5°	151.5	201.8	256.1	245.5	236.6
75°	118.3	169.4	208.3	187.2	182.3
77.5°	87.5	138.6	149.1	137.8	128.8
80°	62.4	109.4	100.5	85.9	81.8
82.5°	42.9	68.9	55.1	42.9	37.3
85°	24.3	30.8	19.4	12.2	9.7
87.5°	10.5	7.3	4.1	3.2	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)