

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: P307146

Luminaire Tested: **14FCZ2-35-UNV-L82765-HRP-CP187-W2A-U-4500K**

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: P307146
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-4500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"
POLYCARB SHEET
Light Source: (168) 4500K 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: 2429.0 lumens
Efficiency: N/A
Efficacy: 80.7 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

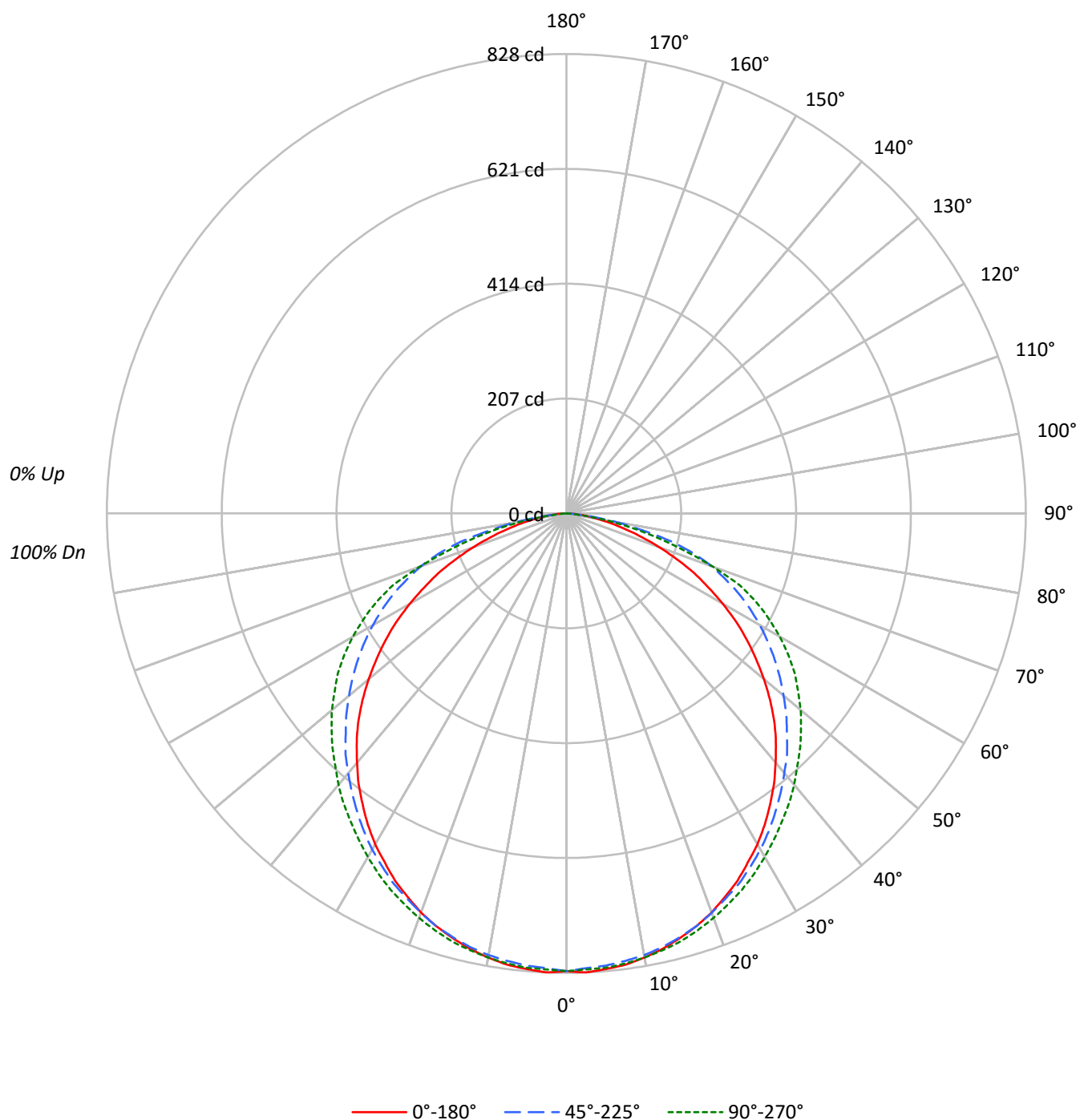
Input Watts (W): 30.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2220	2220	2220
5°	2226	2210	2220
10°	2221	2208	2221
15°	2207	2202	2224
20°	2192	2194	2222
25°	2168	2186	2222
30°	2141	2174	2221
35°	2103	2158	2226
40°	2061	2146	2243
45°	2017	2140	2267
50°	1948	2139	2309
55°	1863	2150	2358
60°	1751	2166	2389
65°	1615	2188	2402
70°	1406	2194	2212
75°	1159	2041	1787
80°	911	1468	1195
85°	707	565	284



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.1	3.2
10°-20°	224.1	9.2
20°-30°	340.3	14.0
30°-40°	412.3	17.0
40°-50°	434.5	17.9
50°-60°	405.6	16.7
60°-70°	324.2	13.3
70°-80°	178.4	7.3
80°-90°	31.5	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°	642.5	26.5
0°-40°	1054.8	43.4
0°-60°	1895.0	78.0
0°-90°	2429.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2429.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	825	825	825	825	825	
5°	824	822	818	823	822	78
15°	792	792	790	798	798	224
25°	730	732	736	747	748	336
35°	640	646	657	674	678	400
45°	530	540	562	587	596	408
55°	397	417	458	490	503	355
65°	254	286	344	372	377	250
75°	112	160	196	176	172	120
85°	23	29	18	12	9	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	824.9	824.9	824.9	824.9	824.9
2.5°	828.0	825.7	820.3	824.9	822.6
5°	824.1	821.8	818.0	823.4	821.8
7.5°	820.3	817.3	813.4	819.6	818.0
10°	812.7	810.4	808.1	813.4	812.7
12.5°	803.5	802.8	800.5	806.6	805.8
15°	792.1	792.1	790.5	798.2	798.2
17.5°	779.8	779.1	779.8	788.2	787.5
20°	765.3	765.3	766.1	776.0	776.0
22.5°	747.8	748.5	750.8	763.0	762.3
25°	730.2	731.7	736.3	747.0	748.5
27.5°	708.8	712.6	718.0	731.0	732.5
30°	688.9	691.2	699.6	711.9	714.9
32.5°	665.3	669.8	679.0	692.8	696.6
35°	640.1	646.2	656.9	673.7	677.5
37.5°	614.9	620.2	634.7	652.3	659.2
40°	586.6	595.8	611.0	630.9	638.5
42.5°	559.1	568.3	588.9	609.5	616.4
45°	530.1	540.0	562.2	587.4	595.8
47.5°	498.0	509.5	537.7	564.4	573.6
50°	465.2	479.7	511.0	540.8	551.5
52.5°	430.8	449.1	485.0	516.3	526.3
55°	397.2	417.0	458.3	490.4	502.6
57.5°	362.8	384.2	430.8	467.4	474.3
60°	325.4	351.3	402.5	434.6	443.8
62.5°	288.7	318.5	373.5	404.0	411.7
65°	253.6	285.7	343.7	372.0	377.3
67.5°	215.4	253.6	310.9	336.8	338.4
70°	178.7	223.0	278.8	291.0	281.1
72.5°	142.8	190.2	241.4	231.4	223.0
75°	111.5	159.6	196.3	176.4	171.9
77.5°	82.5	130.6	140.5	129.8	121.4
80°	58.8	103.1	94.7	81.0	77.1
82.5°	40.5	64.9	51.9	40.5	35.1
85°	22.9	29.0	18.3	11.5	9.2
87.5°	9.9	6.9	3.8	3.1	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)