

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: P307188

Luminaire Tested: **14FCZ2-39-UNV-L82765-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: P307188
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-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: 2491.0 lumens
Efficiency: N/A
Efficacy: 75.3 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

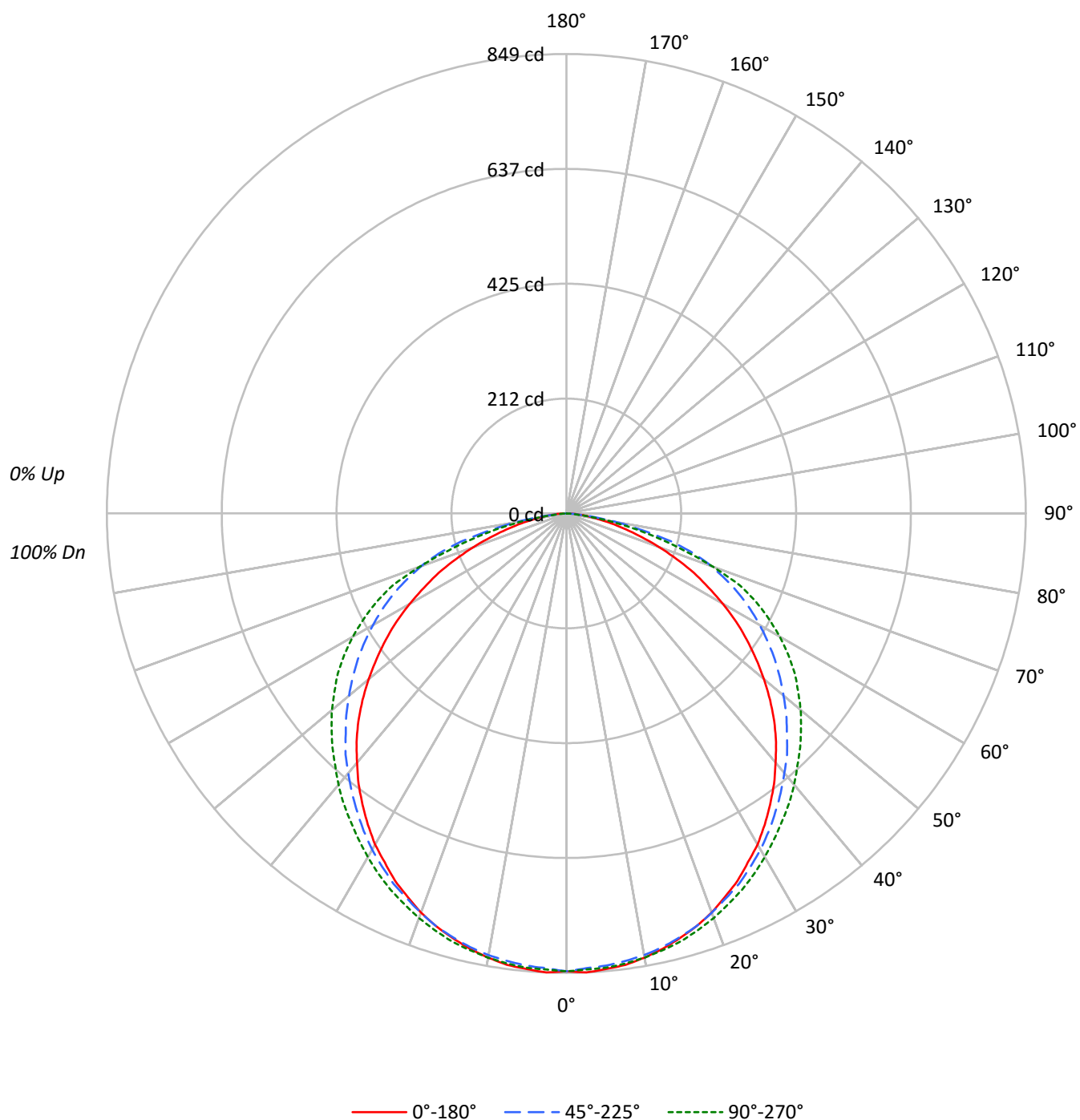
Input Watts (W): 33.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2277	2277	2277
5°	2283	2266	2277
10°	2277	2264	2277
15°	2263	2259	2280
20°	2248	2250	2279
25°	2223	2242	2279
30°	2195	2229	2278
35°	2156	2213	2282
40°	2113	2201	2300
45°	2069	2194	2325
50°	1997	2194	2367
55°	1911	2205	2418
60°	1796	2222	2449
65°	1656	2245	2464
70°	1442	2249	2268
75°	1189	2093	1832
80°	934	1505	1226
85°	726	580	290



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.1	3.2
10°-20°	229.8	9.2
20°-30°	349.0	14.0
30°-40°	422.9	17.0
40°-50°	445.6	17.9
50°-60°	416.0	16.7
60°-70°	332.4	13.3
70°-80°	182.9	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°	658.9	26.5
0°-40°	1081.7	43.4
0°-60°	1943.3	78.0
0°-90°	2491.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2491.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	846	846	846	846	846	
5°	845	843	839	844	843	80
15°	812	812	811	818	818	229
25°	749	750	755	766	768	345
35°	656	663	674	691	695	411
45°	544	554	576	602	611	418
55°	407	428	470	503	515	364
65°	260	293	352	382	387	256
75°	114	164	201	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°	846.0	846.0	846.0	846.0	846.0
2.5°	849.1	846.7	841.3	846.0	843.6
5°	845.2	842.8	838.9	844.4	842.8
7.5°	841.3	838.1	834.2	840.5	838.9
10°	833.4	831.1	828.7	834.2	833.4
12.5°	824.0	823.2	820.9	827.2	826.4
15°	812.3	812.3	810.7	818.5	818.5
17.5°	799.7	799.0	799.7	808.4	807.6
20°	784.9	784.9	785.6	795.8	795.8
22.5°	766.8	767.6	770.0	782.5	781.7
25°	748.8	750.4	755.1	766.1	767.6
27.5°	726.9	730.8	736.3	749.6	751.2
30°	706.5	708.9	717.5	730.0	733.2
32.5°	682.2	686.9	696.3	710.4	714.4
35°	656.4	662.7	673.6	690.9	694.8
37.5°	630.6	636.0	650.9	668.9	676.0
40°	601.6	611.0	626.6	647.0	654.8
42.5°	573.4	582.8	603.9	625.1	632.1
45°	543.6	553.8	576.5	602.4	611.0
47.5°	510.7	522.5	551.4	578.9	588.3
50°	477.0	491.9	524.0	554.6	565.5
52.5°	441.8	460.6	497.4	529.5	539.7
55°	407.3	427.7	470.0	502.9	515.4
57.5°	372.1	394.0	441.8	479.4	486.4
60°	333.7	360.3	412.8	445.7	455.1
62.5°	296.1	326.6	383.0	414.4	422.2
65°	260.1	293.0	352.5	381.5	386.9
67.5°	220.9	260.1	318.8	345.4	347.0
70°	183.3	228.7	285.9	298.4	288.3
72.5°	146.5	195.0	247.5	237.3	228.7
75°	114.4	163.7	201.3	180.9	176.2
77.5°	84.6	133.9	144.1	133.2	124.5
80°	60.3	105.7	97.1	83.0	79.1
82.5°	41.5	66.6	53.3	41.5	36.0
85°	23.5	29.8	18.8	11.7	9.4
87.5°	10.2	7.0	3.9	3.1	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)