

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: P307908

Luminaire Tested: **14FCZ2-29-UNV-L82765-S-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: P307908
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-29-UNV-L82765-S-CP187-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH 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: 2501.0 lumens
Efficiency: N/A
Efficacy: 106.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

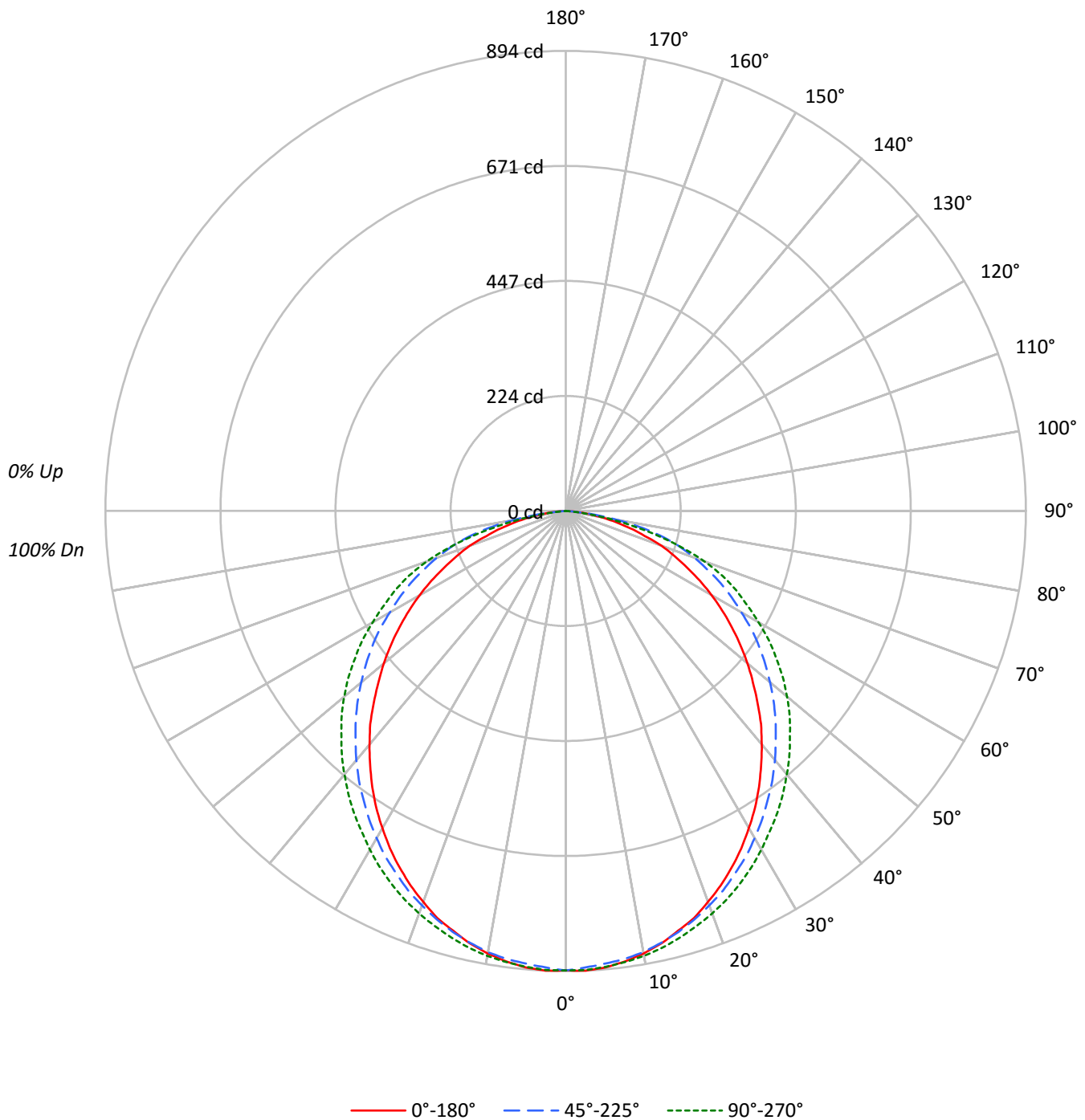
Input Watts (W): 23.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		94	91	89		84
2	99	90	84	78	96	89	82	77	85	80	75		82	77	73		70
3	90	79	71	65	87	78	70	64	75	68	63		72	66	62		58
4	82	70	61	55	80	69	61	54	66	59	53		64	58	53		50
5	76	63	54	47	74	62	53	47	59	52	46		57	51	46		43
6	70	56	47	41	68	55	47	41	54	46	40		52	45	40		38
7	65	51	42	36	63	50	42	36	49	41	36		47	41	35		33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		27
10	53	40	32	26	52	39	31	26	38	31	26		37	31	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2403	2403	2403
5°	2405	2385	2402
10°	2385	2379	2399
15°	2353	2359	2391
20°	2315	2336	2383
25°	2268	2309	2375
30°	2212	2281	2362
35°	2151	2249	2354
40°	2082	2222	2348
45°	2006	2194	2345
50°	1931	2170	2352
55°	1850	2152	2344
60°	1762	2122	2329
65°	1658	2116	2329
70°	1561	2098	2264
75°	1354	2050	1934
80°	1096	1652	1288
85°	729	574	383



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.3	3.4
10°-20°	239.9	9.6
20°-30°	359.9	14.4
30°-40°	429.3	17.2
40°-50°	443.8	17.7
50°-60°	405.2	16.2
60°-70°	318.8	12.7
70°-80°	185.6	7.4
80°-90°	34.2	1.4
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°	684.1	27.4
0°-40°	1113.4	44.5
0°-60°	1962.3	78.5
0°-90°	2501.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2501.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	893	893	893	893	893	
5°	890	888	883	890	889	84
15°	844	846	847	858	858	238
25°	764	768	778	796	800	352
35°	655	663	684	710	717	409
45°	527	544	577	609	616	407
55°	394	415	459	492	500	353
65°	260	288	332	358	366	259
75°	130	161	197	193	186	138
85°	24	34	19	15	12	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	892.8	892.8	892.8	892.8	892.8
2.5°	894.1	891.6	887.9	894.1	892.8
5°	890.3	887.9	882.9	890.3	889.1
7.5°	882.9	880.4	877.9	885.4	884.1
10°	873.0	871.7	870.5	879.2	877.9
12.5°	860.6	860.6	859.3	869.3	869.3
15°	844.5	845.7	846.9	858.1	858.1
17.5°	829.6	828.3	832.1	844.5	845.7
20°	808.5	811.0	815.9	830.8	832.1
22.5°	787.4	789.9	798.6	813.5	817.2
25°	763.9	767.6	777.5	796.1	799.8
27.5°	739.1	744.0	757.7	777.5	781.2
30°	711.8	719.2	734.1	756.4	760.1
32.5°	684.5	691.9	710.5	732.9	737.8
35°	654.7	663.4	684.5	710.5	716.7
37.5°	623.7	634.9	659.7	685.7	693.2
40°	592.7	605.1	632.4	659.7	668.4
42.5°	561.7	574.1	603.9	634.9	643.6
45°	527.0	544.4	576.6	608.9	616.3
47.5°	493.5	512.1	548.1	580.3	590.3
50°	461.3	479.9	518.3	551.8	561.7
52.5°	427.8	447.6	488.6	523.3	532.0
55°	394.3	415.4	458.8	492.3	499.7
57.5°	360.8	383.2	427.8	460.0	468.7
60°	327.4	350.9	394.3	426.6	432.8
62.5°	293.9	318.7	363.3	391.8	398.0
65°	260.4	287.7	332.3	358.4	365.8
67.5°	228.2	255.4	298.8	323.6	329.8
70°	198.4	223.2	266.6	285.2	287.7
72.5°	161.2	192.2	234.4	244.3	238.1
75°	130.2	161.2	197.2	193.4	186.0
77.5°	99.2	130.2	153.8	141.4	131.4
80°	70.7	101.7	106.6	88.0	83.1
82.5°	45.9	70.7	59.5	45.9	37.2
85°	23.6	33.5	18.6	14.9	12.4
87.5°	7.4	5.0	2.5	2.5	1.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)