

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: P307683

Luminaire Tested: **14FCZ2-35-UNV-L82765-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: P307683
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
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-CP187-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE,RIBBED 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: 2976.0 lumens
Efficiency: N/A
Efficacy: 101.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

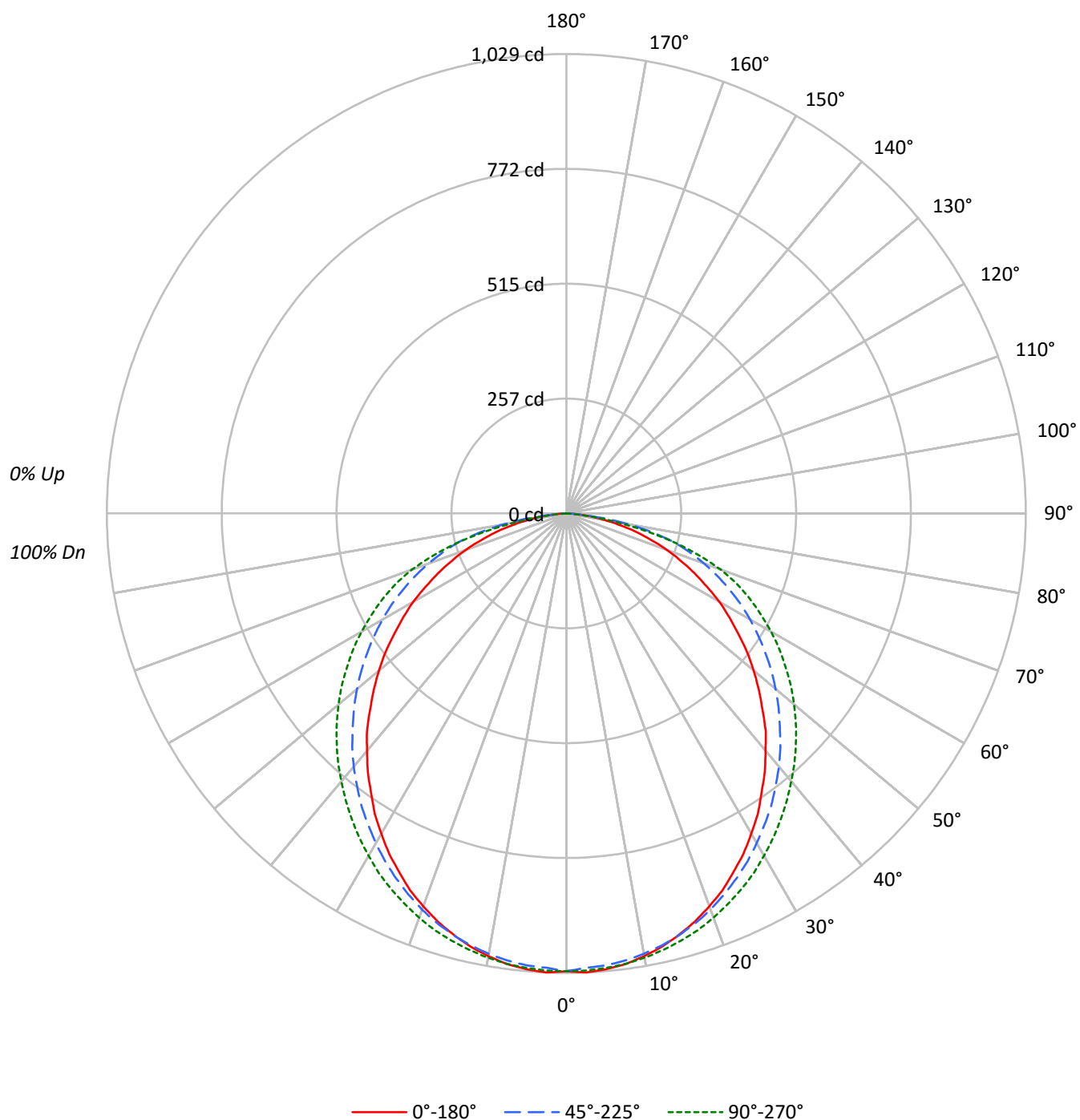
Input Watts (W): 29.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91		93	90	88		83
2	98	90	83	77	96	88	82	76	84	79	74		81	77	73		69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	79	68	60	53	66	58	53		63	57	52		49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		32
8	60	46	37	32	58	45	37	31	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	39	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2759	2759	2759
5°	2768	2744	2760
10°	2751	2736	2761
15°	2721	2723	2760
20°	2681	2704	2759
25°	2630	2678	2757
30°	2573	2650	2751
35°	2505	2627	2749
40°	2438	2602	2753
45°	2364	2573	2768
50°	2295	2561	2786
55°	2207	2553	2811
60°	2129	2557	2850
65°	2020	2565	2895
70°	1895	2585	2892
75°	1718	2608	2615
80°	1409	2252	1861
85°	1044	1065	429



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.0	3.3
10°-20°	277.1	9.3
20°-30°	417.5	14.0
30°-40°	501.0	16.8
40°-50°	522.1	17.5
50°-60°	483.4	16.2
60°-70°	390.6	13.1
70°-80°	238.1	8.0
80°-90°	49.1	1.7
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°	791.6	26.6
0°-40°	1292.6	43.4
0°-60°	2298.1	77.2
0°-90°	2976.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2976.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1025	1025	1025	1025	1025	
5°	1025	1022	1016	1023	1022	97
15°	977	978	978	991	991	275
25°	886	891	902	924	928	408
35°	762	774	800	829	837	478
45°	621	640	676	714	727	480
55°	470	495	544	587	599	422
65°	317	348	403	443	455	314
75°	165	202	251	255	252	174
85°	34	50	34	19	14	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1025.2	1025.2	1025.2	1025.2	1025.2
2.5°	1029.2	1025.9	1018.6	1025.9	1024.6
5°	1024.6	1021.9	1016.0	1023.3	1021.9
7.5°	1017.9	1015.3	1010.0	1018.6	1017.3
10°	1006.7	1005.3	1001.4	1011.3	1010.6
12.5°	993.4	992.7	990.7	1002.0	1001.4
15°	976.8	977.5	977.5	990.7	990.7
17.5°	958.2	959.5	962.2	976.8	978.8
20°	936.3	939.0	944.3	960.9	963.5
22.5°	913.8	915.7	923.7	943.6	946.3
25°	885.9	891.2	901.8	924.4	928.4
27.5°	859.3	864.0	878.6	901.8	908.5
30°	828.2	835.5	852.7	877.9	885.2
32.5°	798.3	806.3	826.2	855.4	862.0
35°	762.5	774.4	799.6	828.8	836.8
37.5°	729.9	741.2	769.8	801.6	810.9
40°	694.1	708.0	740.6	774.4	783.7
42.5°	660.9	674.2	709.4	743.9	756.5
45°	621.1	639.7	676.2	714.0	727.3
47.5°	584.6	603.2	645.0	685.5	697.4
50°	548.1	568.0	611.8	653.6	665.6
52.5°	510.3	531.5	578.6	620.5	634.4
55°	470.5	495.0	544.1	586.6	599.2
57.5°	432.7	457.9	510.3	553.4	566.0
60°	395.5	421.4	475.1	516.3	529.5
62.5°	354.4	384.9	440.6	481.1	491.1
65°	317.2	348.4	402.8	443.3	454.6
67.5°	278.0	311.9	366.3	403.5	414.1
70°	240.9	276.1	328.5	363.0	367.6
72.5°	201.1	236.9	290.0	311.9	311.9
75°	165.2	201.7	250.8	254.8	251.5
77.5°	126.1	166.6	198.4	190.4	182.5
80°	90.9	130.7	145.3	130.7	120.1
82.5°	61.0	94.9	87.6	69.7	61.7
85°	33.8	50.4	34.5	19.2	13.9
87.5°	12.6	11.3	3.3	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)