

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: P307684

Luminaire Tested: **14FCZ2-35-UNV-L82765-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: P307684
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-3500K
Description: 1'X4' TROFFER LED MODULE,RIBBED 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: 3079.0 lumens
Efficiency: N/A
Efficacy: 104.0 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

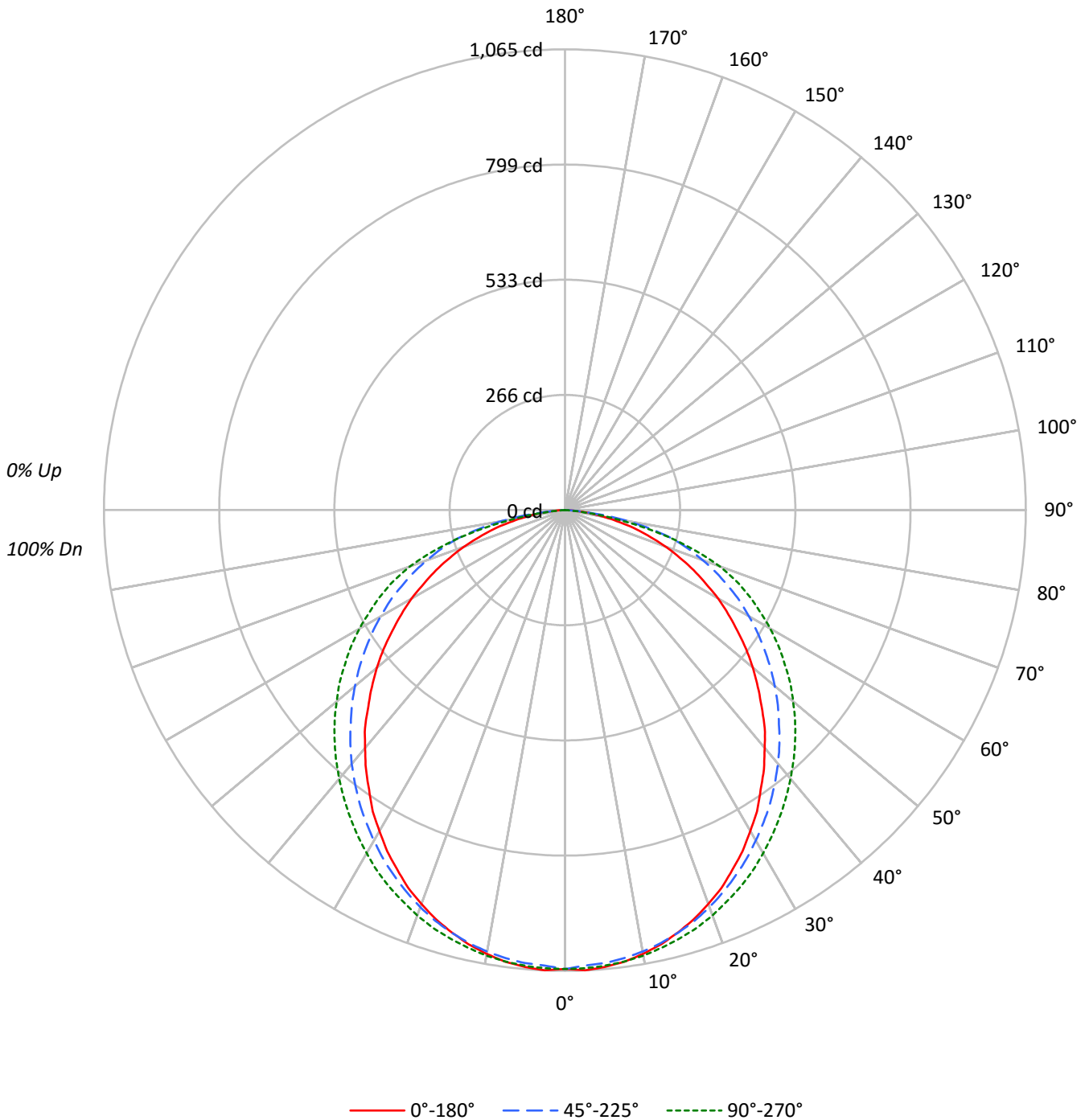
Input Watts (W): 29.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	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	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2854	2854	2854
5°	2863	2839	2856
10°	2846	2831	2857
15°	2815	2817	2856
20°	2774	2798	2855
25°	2721	2770	2852
30°	2662	2741	2846
35°	2592	2718	2844
40°	2523	2692	2848
45°	2445	2662	2864
50°	2374	2650	2883
55°	2284	2641	2909
60°	2202	2646	2949
65°	2090	2653	2995
70°	1961	2674	2993
75°	1778	2698	2705
80°	1458	2331	1926
85°	1081	1102	445



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.4	3.3
10°-20°	286.7	9.3
20°-30°	431.9	14.0
30°-40°	518.3	16.8
40°-50°	540.2	17.5
50°-60°	500.1	16.2
60°-70°	404.1	13.1
70°-80°	246.4	8.0
80°-90°	50.9	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°	819.0	26.6
0°-40°	1337.3	43.4
0°-60°	2377.7	77.2
0°-90°	3079.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3079.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1061	1061	1061	1061	1061	
5°	1060	1057	1051	1059	1057	101
15°	1011	1011	1011	1025	1025	285
25°	916	922	933	956	960	422
35°	789	801	827	858	866	494
45°	643	662	700	739	752	497
55°	487	512	563	607	620	436
65°	328	360	417	459	470	324
75°	171	209	260	264	260	180
85°	35	52	36	20	14	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1060.7	1060.7	1060.7	1060.7	1060.7
2.5°	1064.8	1061.4	1053.9	1061.4	1060.0
5°	1060.0	1057.3	1051.1	1058.7	1057.3
7.5°	1053.2	1050.4	1044.9	1053.9	1052.5
10°	1041.5	1040.1	1036.0	1046.3	1045.6
12.5°	1027.8	1027.1	1025.0	1036.7	1036.0
15°	1010.6	1011.3	1011.3	1025.0	1025.0
17.5°	991.4	992.8	995.5	1010.6	1012.7
20°	968.7	971.5	977.0	994.1	996.9
22.5°	945.4	947.4	955.7	976.3	979.0
25°	916.5	922.0	933.0	956.4	960.5
27.5°	889.1	893.9	909.0	933.0	939.9
30°	856.8	864.4	882.2	908.3	915.9
32.5°	825.9	834.2	854.8	885.0	891.8
35°	788.9	801.2	827.3	857.5	865.7
37.5°	755.2	766.9	796.4	829.4	839.0
40°	718.1	732.6	766.2	801.2	810.8
42.5°	683.8	697.5	733.9	769.6	782.7
45°	642.6	661.8	699.6	738.7	752.5
47.5°	604.9	624.1	667.3	709.2	721.6
50°	567.1	587.7	633.0	676.3	688.6
52.5°	528.0	549.9	598.7	641.9	656.3
55°	486.8	512.2	563.0	606.9	620.0
57.5°	447.6	473.7	528.0	572.6	585.6
60°	409.2	436.0	491.6	534.1	547.9
62.5°	366.6	398.2	455.9	497.8	508.0
65°	328.2	360.4	416.7	458.6	470.3
67.5°	287.7	322.7	379.0	417.4	428.4
70°	249.2	285.6	339.8	375.5	380.4
72.5°	208.0	245.1	300.0	322.7	322.7
75°	171.0	208.7	259.5	263.6	260.2
77.5°	130.4	172.3	205.3	197.0	188.8
80°	94.1	135.3	150.4	135.3	124.3
82.5°	63.2	98.2	90.6	72.1	63.8
85°	35.0	52.2	35.7	19.9	14.4
87.5°	13.0	11.7	3.4	3.4	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)