

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: P307728

Luminaire Tested: **14FCZ2-39-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: P307728
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: 14FCZ2-39-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: 3284.0 lumens
Efficiency: N/A
Efficacy: 99.2 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

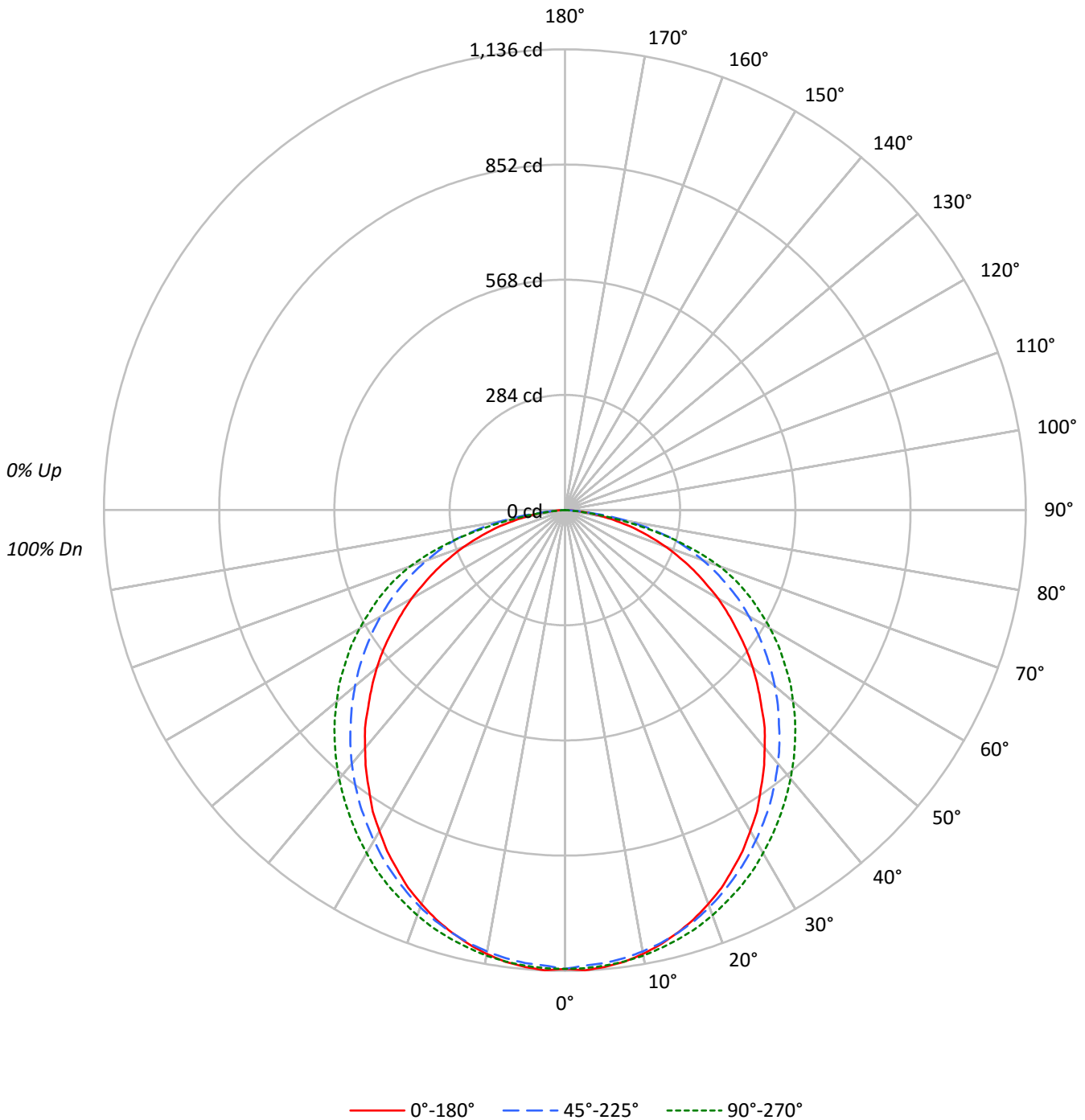
Input Watts (W): 33.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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°	3044	3044	3044
5°	3054	3028	3046
10°	3035	3019	3047
15°	3003	3005	3046
20°	2959	2984	3045
25°	2903	2955	3042
30°	2840	2924	3035
35°	2764	2899	3033
40°	2690	2871	3038
45°	2608	2840	3054
50°	2532	2826	3075
55°	2436	2817	3102
60°	2349	2822	3145
65°	2229	2830	3194
70°	2091	2852	3192
75°	1895	2878	2885
80°	1554	2486	2053
85°	1152	1176	475



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.1	3.3
10°-20°	305.8	9.3
20°-30°	460.7	14.0
30°-40°	552.8	16.8
40°-50°	576.2	17.5
50°-60°	533.4	16.2
60°-70°	431.0	13.1
70°-80°	262.8	8.0
80°-90°	54.3	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°	873.5	26.6
0°-40°	1426.4	43.4
0°-60°	2536.0	77.2
0°-90°	3284.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3284.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1131	1131	1131	1131	1131	
5°	1131	1128	1121	1129	1128	107
15°	1078	1079	1079	1093	1093	304
25°	978	983	995	1020	1024	451
35°	841	855	882	915	923	527
45°	685	706	746	788	803	530
55°	519	546	600	647	661	465
65°	350	384	444	489	502	346
75°	182	223	277	281	278	191
85°	37	56	38	21	15	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1131.3	1131.3	1131.3	1131.3	1131.3
2.5°	1135.7	1132.1	1124.0	1132.1	1130.6
5°	1130.6	1127.7	1121.1	1129.2	1127.7
7.5°	1123.3	1120.4	1114.5	1124.0	1122.6
10°	1110.8	1109.4	1105.0	1116.0	1115.2
12.5°	1096.2	1095.5	1093.3	1105.7	1105.0
15°	1077.9	1078.6	1078.6	1093.3	1093.3
17.5°	1057.4	1058.9	1061.8	1077.9	1080.1
20°	1033.2	1036.2	1042.0	1060.3	1063.2
22.5°	1008.3	1010.5	1019.3	1041.3	1044.2
25°	977.6	983.4	995.1	1020.0	1024.4
27.5°	948.3	953.4	969.5	995.1	1002.5
30°	913.9	921.9	941.0	968.8	976.8
32.5°	880.9	889.7	911.7	943.9	951.2
35°	841.4	854.6	882.4	914.6	923.4
37.5°	805.5	817.9	849.4	884.6	894.8
40°	765.9	781.3	817.2	854.6	864.8
42.5°	729.3	744.0	782.8	820.9	834.8
45°	685.4	705.9	746.2	787.9	802.6
47.5°	645.1	665.6	711.8	756.4	769.6
50°	604.9	626.8	675.1	721.3	734.5
52.5°	563.1	586.5	638.5	684.7	700.0
55°	519.2	546.3	600.5	647.3	661.2
57.5°	477.4	505.3	563.1	610.7	624.6
60°	436.4	465.0	524.3	569.7	584.3
62.5°	391.0	424.7	486.2	530.9	541.9
65°	350.0	384.4	444.5	489.2	501.6
67.5°	306.8	344.2	404.2	445.2	456.9
70°	265.8	304.6	362.5	400.5	405.7
72.5°	221.9	261.4	320.0	344.2	344.2
75°	182.3	222.6	276.8	281.2	277.5
77.5°	139.1	183.8	218.9	210.2	201.4
80°	100.3	144.3	160.4	144.3	132.5
82.5°	67.4	104.7	96.7	76.9	68.1
85°	37.3	55.7	38.1	21.2	15.4
87.5°	13.9	12.4	3.7	3.7	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)