

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: P307997

Luminaire Tested: **14FCZ2-39-UNV-L82765-S-CP187-W2A-U-2700K**

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: P307997
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: 14FCZ2-39-UNV-L82765-S-CP187-W2A-U-2700K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.187" POLYCARB SHEET
Light Source: (168) 2700K 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: 3226.0 lumens
Efficiency: N/A
Efficacy: 96.9 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

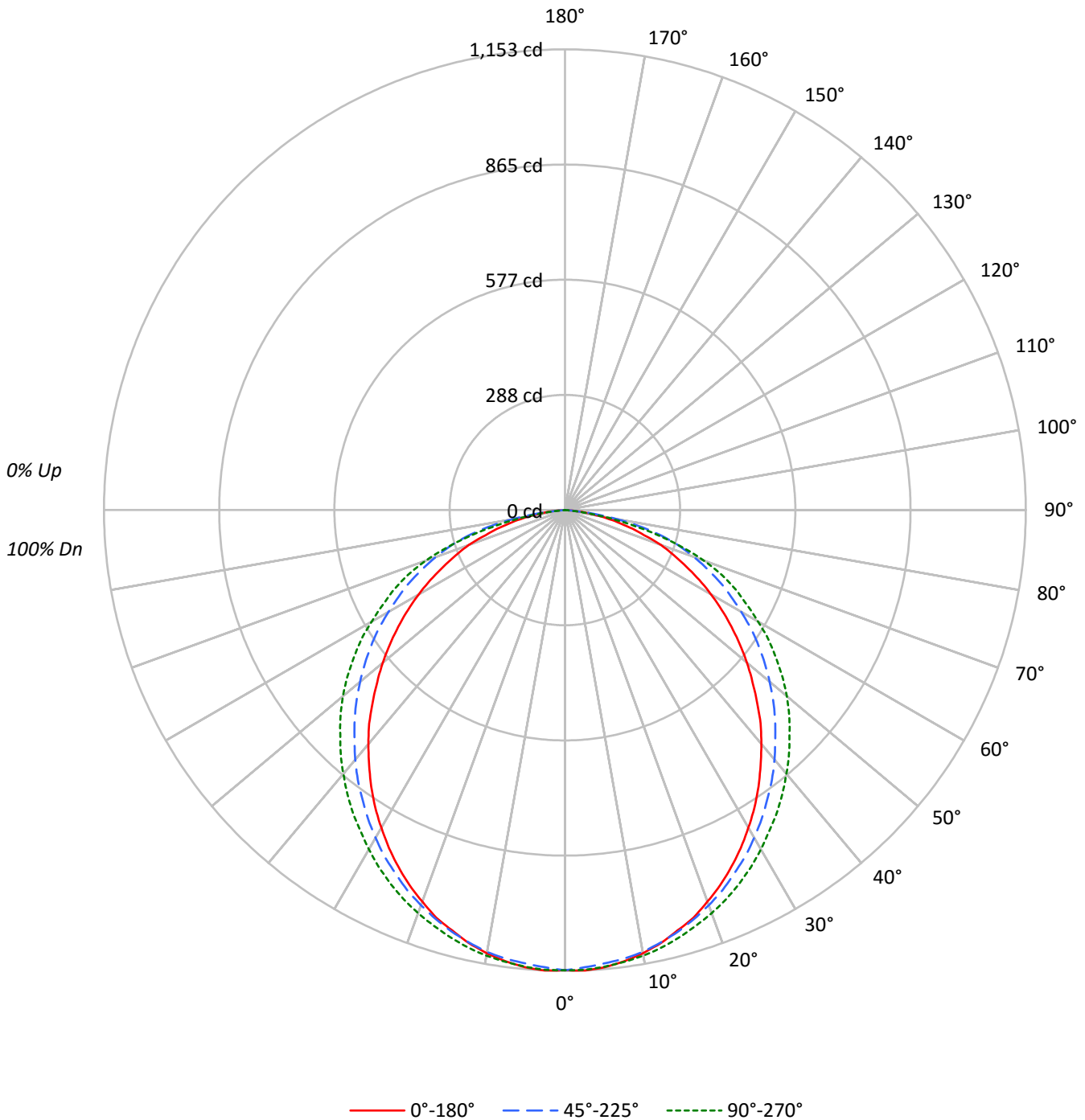
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3099	3099	3099
5°	3102	3076	3098
10°	3077	3068	3094
15°	3034	3043	3083
20°	2987	3014	3074
25°	2926	2978	3063
30°	2853	2942	3047
35°	2774	2900	3037
40°	2686	2865	3028
45°	2587	2831	3025
50°	2491	2799	3033
55°	2386	2776	3024
60°	2273	2737	3004
65°	2139	2730	3004
70°	2013	2706	2920
75°	1746	2644	2494
80°	1413	2132	1661
85°	939	741	494



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.7	3.4
10°-20°	309.4	9.6
20°-30°	464.2	14.4
30°-40°	553.7	17.2
40°-50°	572.4	17.7
50°-60°	522.6	16.2
60°-70°	411.3	12.7
70°-80°	239.4	7.4
80°-90°	44.1	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°	882.4	27.4
0°-40°	1436.1	44.5
0°-60°	2531.2	78.5
0°-90°	3226.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3226.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1152	1152	1152	1152	1152	
5°	1148	1145	1139	1148	1147	109
15°	1089	1091	1092	1107	1107	307
25°	985	990	1003	1027	1032	454
35°	844	856	883	916	924	528
45°	680	702	744	785	795	525
55°	509	536	592	635	645	455
65°	336	371	429	462	472	334
75°	168	208	254	250	240	179
85°	30	43	24	19	16	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1151.6	1151.6	1151.6	1151.6	1151.6
2.5°	1153.2	1150.0	1145.2	1153.2	1151.6
5°	1148.4	1145.2	1138.8	1148.4	1146.8
7.5°	1138.8	1135.6	1132.4	1142.0	1140.4
10°	1126.0	1124.4	1122.8	1134.0	1132.4
12.5°	1110.0	1110.0	1108.4	1121.2	1121.2
15°	1089.2	1090.8	1092.4	1106.8	1106.8
17.5°	1070.1	1068.5	1073.3	1089.2	1090.8
20°	1042.9	1046.1	1052.5	1071.7	1073.3
22.5°	1015.7	1018.9	1030.1	1049.3	1054.1
25°	985.3	990.1	1002.9	1026.9	1031.7
27.5°	953.3	959.7	977.3	1002.9	1007.7
30°	918.1	927.7	946.9	975.7	980.5
32.5°	882.9	892.5	916.5	945.3	951.7
35°	844.5	855.7	882.9	916.5	924.5
37.5°	804.5	818.9	850.9	884.5	894.1
40°	764.6	780.5	815.7	850.9	862.1
42.5°	724.6	740.6	778.9	818.9	830.1
45°	679.8	702.2	743.8	785.3	794.9
47.5°	636.6	660.6	707.0	748.6	761.4
50°	595.0	619.0	668.6	711.8	724.6
52.5°	551.8	577.4	630.2	675.0	686.2
55°	508.6	535.8	591.8	635.0	644.6
57.5°	465.4	494.2	551.8	593.4	604.6
60°	422.3	452.7	508.6	550.2	558.2
62.5°	379.1	411.1	468.6	505.4	513.4
65°	335.9	371.1	428.7	462.3	471.8
67.5°	294.3	329.5	385.5	417.5	425.5
70°	255.9	287.9	343.9	367.9	371.1
72.5°	207.9	247.9	302.3	315.1	307.1
75°	167.9	207.9	254.3	249.5	239.9
77.5°	128.0	167.9	198.3	182.3	169.5
80°	91.2	131.2	137.6	113.6	107.2
82.5°	59.2	91.2	76.8	59.2	48.0
85°	30.4	43.2	24.0	19.2	16.0
87.5°	9.6	6.4	3.2	3.2	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)