

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: P307729

Luminaire Tested: **14FCZ2-39-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: P307729
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-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: 3397.0 lumens
Efficiency: N/A
Efficacy: 101.4 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

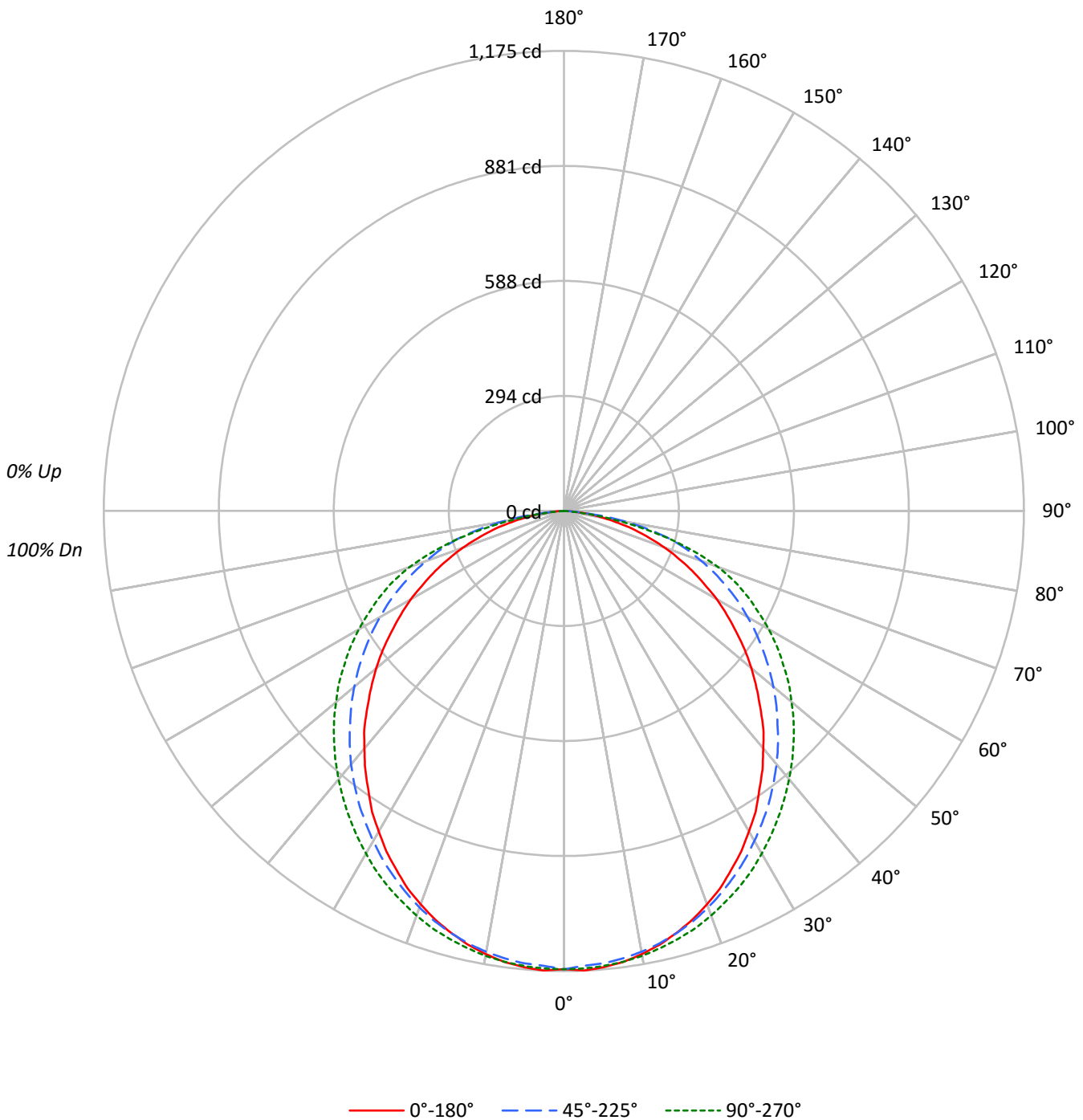
Input Watts (W): 33.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3149	3149	3149
5°	3159	3133	3151
10°	3140	3123	3152
15°	3106	3108	3151
20°	3061	3087	3149
25°	3002	3056	3146
30°	2937	3024	3140
35°	2859	2998	3138
40°	2783	2969	3143
45°	2698	2938	3159
50°	2619	2924	3180
55°	2519	2914	3209
60°	2429	2919	3253
65°	2306	2928	3304
70°	2164	2950	3301
75°	1961	2977	2985
80°	1609	2571	2125
85°	1192	1216	491



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.7	3.3
10°-20°	316.3	9.3
20°-30°	476.5	14.0
30°-40°	571.8	16.8
40°-50°	596.0	17.5
50°-60°	551.8	16.2
60°-70°	445.8	13.1
70°-80°	271.8	8.0
80°-90°	56.1	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°	903.6	26.6
0°-40°	1475.5	43.4
0°-60°	2623.2	77.2
0°-90°	3397.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3397.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1170	1170	1170	1170	1170	
5°	1170	1166	1160	1168	1166	111
15°	1115	1116	1116	1131	1131	314
25°	1011	1017	1029	1055	1060	466
35°	870	884	913	946	955	545
45°	709	730	772	815	830	548
55°	537	565	621	670	684	481
65°	362	398	460	506	519	358
75°	189	230	286	291	287	198
85°	39	58	39	22	16	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1170.3	1170.3	1170.3	1170.3	1170.3
2.5°	1174.8	1171.0	1162.7	1171.0	1169.5
5°	1169.5	1166.5	1159.7	1168.0	1166.5
7.5°	1161.9	1158.9	1152.9	1162.7	1161.2
10°	1149.1	1147.6	1143.0	1154.4	1153.6
12.5°	1133.9	1133.2	1130.9	1143.8	1143.0
15°	1115.0	1115.7	1115.7	1130.9	1130.9
17.5°	1093.8	1095.3	1098.3	1115.0	1117.3
20°	1068.8	1071.8	1077.9	1096.8	1099.8
22.5°	1043.0	1045.3	1054.4	1077.1	1080.1
25°	1011.2	1017.3	1029.4	1055.1	1059.7
27.5°	980.9	986.2	1002.9	1029.4	1037.0
30°	945.3	953.6	973.3	1002.1	1010.5
32.5°	911.2	920.3	943.0	976.4	983.9
35°	870.3	884.0	912.7	946.1	955.2
37.5°	833.2	846.1	878.7	915.0	925.6
40°	792.3	808.2	845.3	884.0	894.6
42.5°	754.4	769.6	809.7	849.1	863.5
45°	709.0	730.2	771.9	815.0	830.2
47.5°	667.3	688.5	736.3	782.5	796.1
50°	625.7	648.4	698.4	746.1	759.7
52.5°	582.5	606.7	660.5	708.2	724.1
55°	537.0	565.1	621.1	669.6	684.0
57.5°	493.9	522.6	582.5	631.7	646.1
60°	451.4	481.0	542.3	589.3	604.5
62.5°	404.5	439.3	503.0	549.2	560.5
65°	362.1	397.7	459.8	506.0	518.9
67.5°	317.4	356.0	418.1	460.5	472.7
70°	275.0	315.1	374.9	414.3	419.6
72.5°	229.5	270.4	331.0	356.0	356.0
75°	188.6	230.3	286.3	290.9	287.1
77.5°	143.9	190.1	226.5	217.4	208.3
80°	103.8	149.2	165.9	149.2	137.1
82.5°	69.7	108.3	100.0	79.5	70.4
85°	38.6	57.6	39.4	22.0	15.9
87.5°	14.4	12.9	3.8	3.8	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)