

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: P307970

Luminaire Tested: **14FCZ2-39-UNV-L82765-S-CA08-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: P307970
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-CA08-W2A-U-2700K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.08" ACRYLIC 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: 3447.0 lumens
Efficiency: N/A
Efficacy: 103.5 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

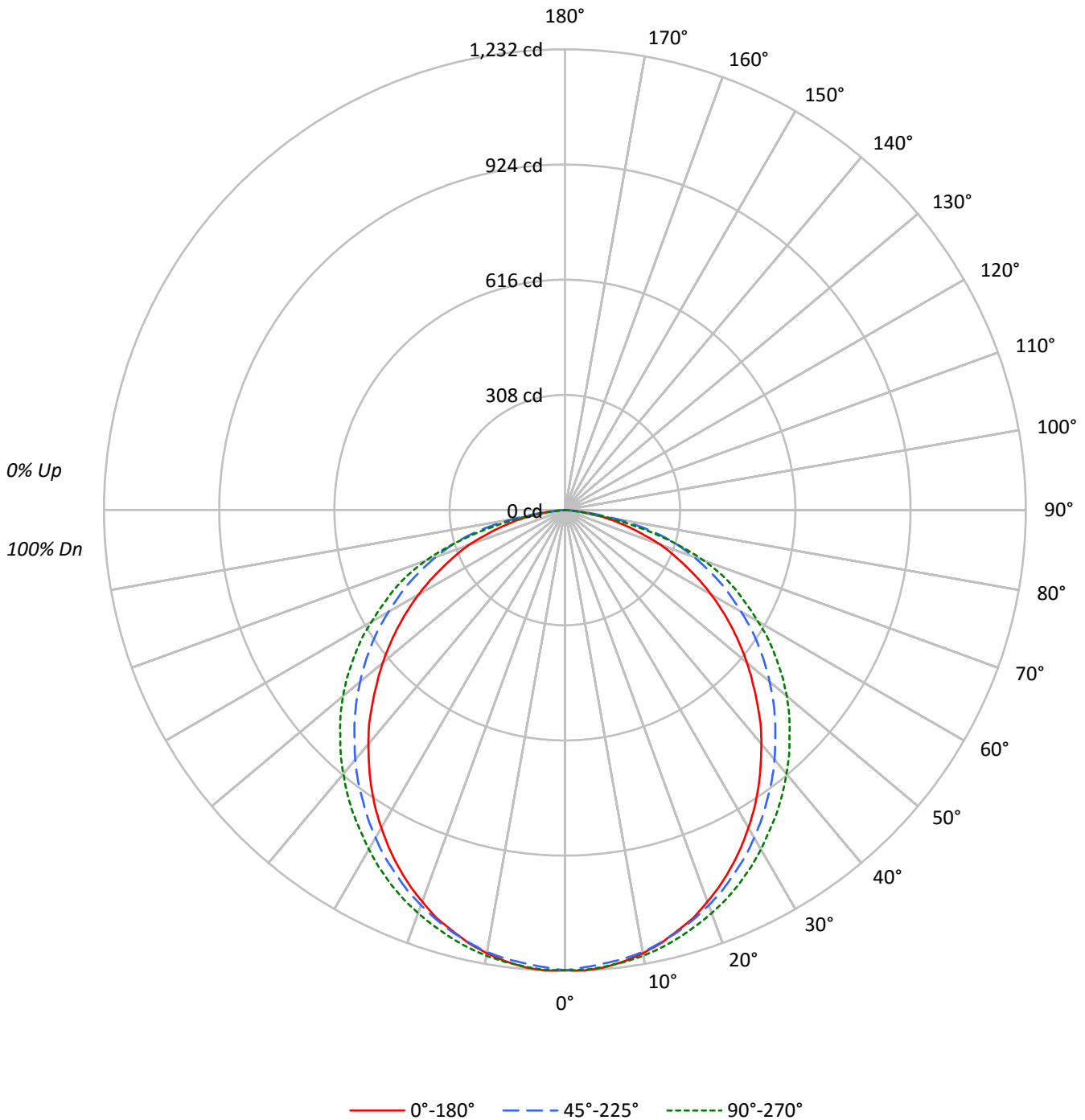
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3311	3311	3311
5°	3315	3287	3310
10°	3288	3278	3306
15°	3243	3252	3295
20°	3191	3220	3284
25°	3126	3182	3273
30°	3048	3144	3255
35°	2964	3099	3245
40°	2870	3062	3236
45°	2764	3024	3232
50°	2662	2991	3241
55°	2550	2967	3232
60°	2428	2925	3210
65°	2285	2916	3210
70°	2151	2891	3120
75°	1866	2825	2666
80°	1509	2278	1774
85°	1003	790	528



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.2	3.4
10°-20°	330.7	9.6
20°-30°	496.0	14.4
30°-40°	591.7	17.2
40°-50°	611.6	17.7
50°-60°	558.4	16.2
60°-70°	439.5	12.7
70°-80°	255.8	7.4
80°-90°	47.1	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°	942.8	27.4
0°-40°	1534.5	44.5
0°-60°	2704.6	78.5
0°-90°	3447.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3447.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1230	1230	1230	1230	1230	
5°	1227	1224	1217	1227	1225	116
15°	1164	1166	1167	1183	1183	328
25°	1053	1058	1072	1097	1102	485
35°	902	914	943	979	988	564
45°	726	750	795	839	849	561
55°	544	572	632	678	689	486
65°	359	396	458	494	504	356
75°	180	222	272	267	256	191
85°	32	46	26	20	17	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1230.5	1230.5	1230.5	1230.5	1230.5
2.5°	1232.2	1228.8	1223.7	1232.2	1230.5
5°	1227.1	1223.7	1216.8	1227.1	1225.4
7.5°	1216.8	1213.4	1210.0	1220.3	1218.6
10°	1203.2	1201.5	1199.8	1211.7	1210.0
12.5°	1186.1	1186.1	1184.4	1198.0	1198.0
15°	1163.9	1165.6	1167.3	1182.7	1182.7
17.5°	1143.4	1141.7	1146.8	1163.9	1165.6
20°	1114.3	1117.7	1124.6	1145.1	1146.8
22.5°	1085.3	1088.7	1100.6	1121.1	1126.3
25°	1052.8	1057.9	1071.6	1097.2	1102.3
27.5°	1018.6	1025.4	1044.2	1071.6	1076.7
30°	981.0	991.3	1011.8	1042.5	1047.7
32.5°	943.4	953.7	979.3	1010.1	1016.9
35°	902.4	914.3	943.4	979.3	987.8
37.5°	859.7	875.0	909.2	945.1	955.4
40°	816.9	834.0	871.6	909.2	921.2
42.5°	774.2	791.3	832.3	875.0	887.0
45°	726.3	750.3	794.7	839.1	849.4
47.5°	680.2	705.8	755.4	799.8	813.5
50°	635.8	661.4	714.4	760.5	774.2
52.5°	589.6	617.0	673.4	721.2	733.2
55°	543.5	572.5	632.4	678.5	688.8
57.5°	497.3	528.1	589.6	634.1	646.0
60°	451.2	483.7	543.5	587.9	596.5
62.5°	405.0	439.2	500.8	540.1	548.6
65°	358.9	396.5	458.0	493.9	504.2
67.5°	314.5	352.1	411.9	446.1	454.6
70°	273.4	307.6	367.4	393.1	396.5
72.5°	222.2	264.9	323.0	336.7	328.1
75°	179.5	222.2	271.7	266.6	256.4
77.5°	136.7	179.5	211.9	194.8	181.2
80°	97.4	140.1	147.0	121.3	114.5
82.5°	63.2	97.4	82.0	63.2	51.3
85°	32.5	46.1	25.6	20.5	17.1
87.5°	10.3	6.8	3.4	3.4	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)