

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: P307781

Luminaire Tested: **14FCZ2-44-UNV-L82765-CP250-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: P307781
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: 14FCZ2-44-UNV-L82765-CP250-W2A-U-2700K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.250" 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: 3539.0 lumens
Efficiency: N/A
Efficacy: 92.4 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

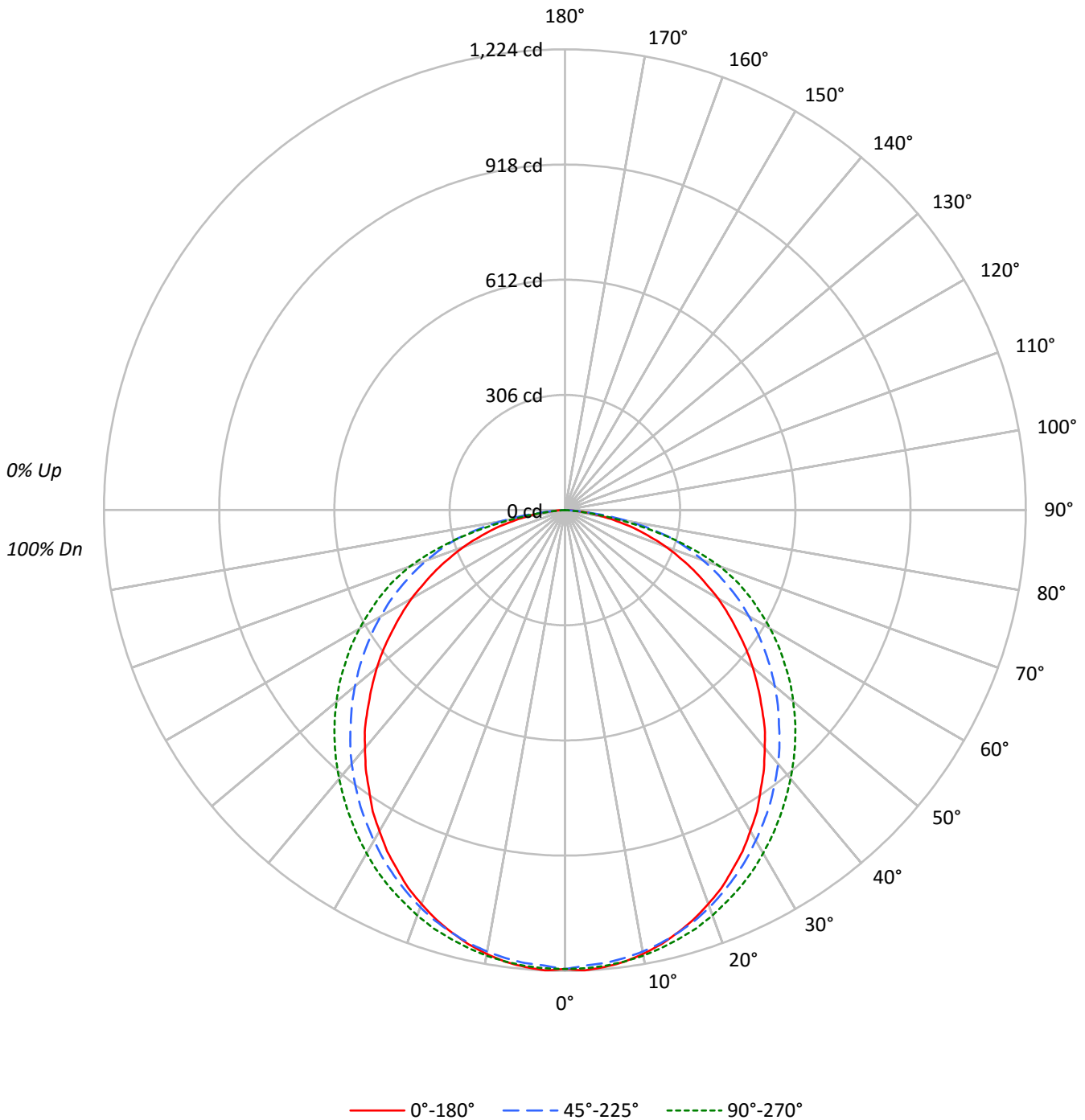
Input Watts (W): 38.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3281	3281	3281
5°	3291	3263	3283
10°	3271	3254	3284
15°	3236	3238	3282
20°	3189	3216	3281
25°	3128	3184	3278
30°	3060	3151	3271
35°	2979	3124	3269
40°	2899	3094	3274
45°	2811	3060	3291
50°	2729	3046	3314
55°	2625	3036	3343
60°	2531	3041	3389
65°	2402	3050	3442
70°	2254	3073	3440
75°	2043	3101	3110
80°	1675	2678	2213
85°	1241	1266	513



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.4	3.3
10°-20°	329.6	9.3
20°-30°	496.5	14.0
30°-40°	595.8	16.8
40°-50°	620.9	17.5
50°-60°	574.8	16.2
60°-70°	464.5	13.1
70°-80°	283.2	8.0
80°-90°	58.5	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°	941.4	26.6
0°-40°	1537.1	43.4
0°-60°	2732.9	77.2
0°-90°	3539.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3539.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1219	1219	1219	1219	1219	
5°	1218	1215	1208	1217	1215	116
15°	1162	1162	1162	1178	1178	327
25°	1054	1060	1072	1099	1104	486
35°	907	921	951	986	995	568
45°	739	761	804	849	865	571
55°	560	589	647	698	713	501
65°	377	414	479	527	541	373
75°	196	240	298	303	299	206
85°	40	60	41	23	17	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1219.2	1219.2	1219.2	1219.2	1219.2
2.5°	1223.9	1220.0	1211.3	1220.0	1218.4
5°	1218.4	1215.3	1208.1	1216.8	1215.3
7.5°	1210.5	1207.4	1201.0	1211.3	1209.7
10°	1197.1	1195.5	1190.8	1202.6	1201.8
12.5°	1181.3	1180.5	1178.2	1191.6	1190.8
15°	1161.6	1162.4	1162.4	1178.2	1178.2
17.5°	1139.5	1141.1	1144.2	1161.6	1164.0
20°	1113.5	1116.6	1122.9	1142.7	1145.8
22.5°	1086.6	1089.0	1098.5	1122.1	1125.3
25°	1053.5	1059.8	1072.4	1099.3	1104.0
27.5°	1021.9	1027.4	1044.8	1072.4	1080.3
30°	984.8	993.5	1014.0	1044.0	1052.7
32.5°	949.3	958.8	982.5	1017.2	1025.1
35°	906.7	920.9	950.9	985.6	995.1
37.5°	868.0	881.5	915.4	953.3	964.3
40°	825.4	842.0	880.7	920.9	932.0
42.5°	786.0	801.8	843.6	884.6	899.6
45°	738.6	760.7	804.1	849.1	864.9
47.5°	695.2	717.3	767.0	815.2	829.4
50°	651.8	675.5	727.6	777.3	791.5
52.5°	606.8	632.1	688.1	737.8	754.4
55°	559.5	588.7	647.1	697.6	712.6
57.5°	514.5	544.5	606.8	658.1	673.1
60°	470.3	501.1	565.0	613.9	629.7
62.5°	421.4	457.7	524.0	572.1	584.0
65°	377.2	414.3	479.0	527.1	540.6
67.5°	330.6	370.9	435.6	479.8	492.4
70°	286.5	328.3	390.6	431.7	437.2
72.5°	239.1	281.7	344.8	370.9	370.9
75°	196.5	239.9	298.3	303.0	299.1
77.5°	149.9	198.1	235.9	226.5	217.0
80°	108.1	155.5	172.8	155.5	142.8
82.5°	72.6	112.8	104.2	82.9	73.4
85°	40.2	60.0	41.0	22.9	16.6
87.5°	15.0	13.4	3.9	3.9	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)