

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: P312281

Luminaire Tested: **14FCZ2-44-UNV-L83050-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: P312281
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-L83050-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: 3889.0 lumens
Efficiency: N/A
Efficacy: 101.5 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

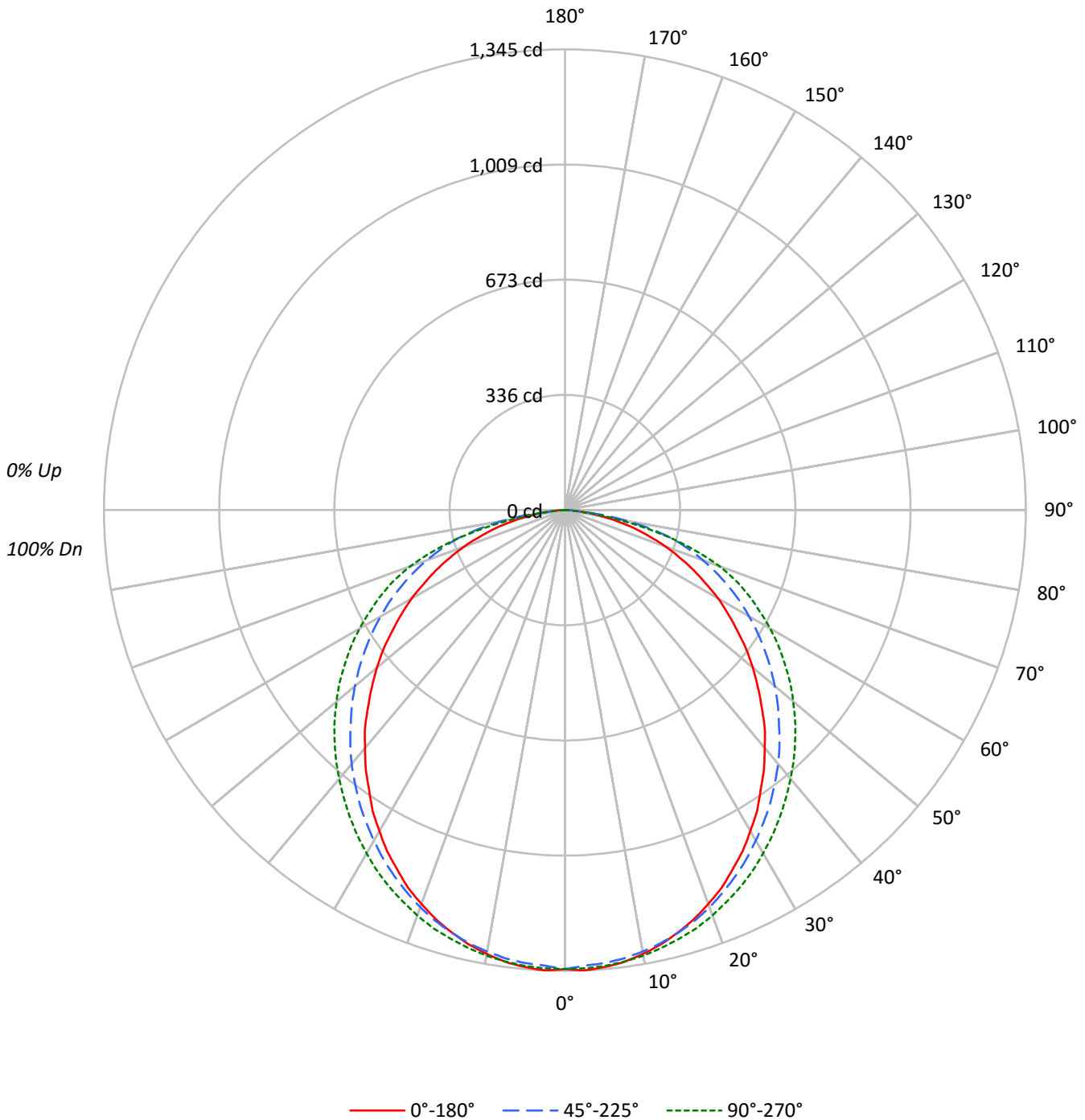
Input Watts (W): 38.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3605	3605	3605
5°	3617	3586	3607
10°	3595	3576	3609
15°	3556	3558	3607
20°	3504	3534	3606
25°	3437	3499	3602
30°	3363	3462	3594
35°	3273	3433	3592
40°	3186	3400	3597
45°	3089	3363	3617
50°	2999	3347	3641
55°	2884	3336	3674
60°	2781	3342	3724
65°	2639	3352	3782
70°	2477	3377	3780
75°	2245	3408	3418
80°	1841	2943	2433
85°	1365	1392	562



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.8	3.3
10°-20°	362.2	9.3
20°-30°	545.6	14.0
30°-40°	654.7	16.8
40°-50°	682.3	17.5
50°-60°	631.7	16.2
60°-70°	510.4	13.1
70°-80°	311.2	8.0
80°-90°	64.2	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°	1034.5	26.6
0°-40°	1689.2	43.4
0°-60°	3003.2	77.2
0°-90°	3889.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3889.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1340	1340	1340	1340	1340	
5°	1339	1335	1328	1337	1335	127
15°	1276	1277	1277	1295	1295	360
25°	1158	1165	1178	1208	1213	534
35°	996	1012	1045	1083	1094	624
45°	812	836	884	933	950	627
55°	615	647	711	767	783	551
65°	414	455	526	579	594	410
75°	216	264	328	333	329	227
85°	44	66	45	25	18	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1339.8	1339.8	1339.8	1339.8	1339.8
2.5°	1345.0	1340.6	1331.1	1340.6	1338.9
5°	1338.9	1335.4	1327.6	1337.2	1335.4
7.5°	1330.2	1326.8	1319.8	1331.1	1329.4
10°	1315.5	1313.8	1308.6	1321.6	1320.7
12.5°	1298.1	1297.3	1294.7	1309.4	1308.6
15°	1276.5	1277.3	1277.3	1294.7	1294.7
17.5°	1252.2	1253.9	1257.4	1276.5	1279.1
20°	1223.6	1227.0	1234.0	1255.7	1259.1
22.5°	1194.1	1196.7	1207.1	1233.1	1236.6
25°	1157.7	1164.6	1178.5	1208.0	1213.2
27.5°	1123.0	1129.1	1148.1	1178.5	1187.2
30°	1082.2	1091.8	1114.3	1147.3	1156.8
32.5°	1043.2	1053.6	1079.6	1117.8	1126.5
35°	996.4	1012.0	1044.9	1083.1	1093.5
37.5°	953.9	968.6	1005.9	1047.5	1059.7
40°	907.1	925.3	967.8	1012.0	1024.1
42.5°	863.7	881.0	927.0	972.1	988.6
45°	811.7	835.9	883.6	933.1	950.4
47.5°	764.0	788.3	842.9	895.8	911.4
50°	716.3	742.3	799.5	854.2	869.8
52.5°	666.9	694.6	756.2	810.8	829.0
55°	614.8	646.9	711.1	766.6	783.1
57.5°	565.4	598.3	666.9	723.2	739.7
60°	516.8	550.7	620.9	674.7	692.0
62.5°	463.1	503.0	575.8	628.7	641.7
65°	414.5	455.3	526.4	579.3	594.0
67.5°	363.3	407.6	478.7	527.2	541.1
70°	314.8	360.7	429.2	474.3	480.4
72.5°	262.8	309.6	379.0	407.6	407.6
75°	215.9	263.6	327.8	333.0	328.7
77.5°	164.8	217.7	259.3	248.9	238.5
80°	118.8	170.8	189.9	170.8	157.0
82.5°	79.8	124.0	114.5	91.1	80.6
85°	44.2	65.9	45.1	25.1	18.2
87.5°	16.5	14.7	4.3	4.3	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)