

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: P312430

Luminaire Tested: **14FCZ2-44-UNV-L83050-S-CP187-W2A-U-3000K**

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: P312430
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: 14FCZ2-44-UNV-L83050-S-CP187-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.187" POLYCARB SHEET
Light Source: (168) 3000K 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: 3713.0 lumens
Efficiency: N/A
Efficacy: 97.2 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

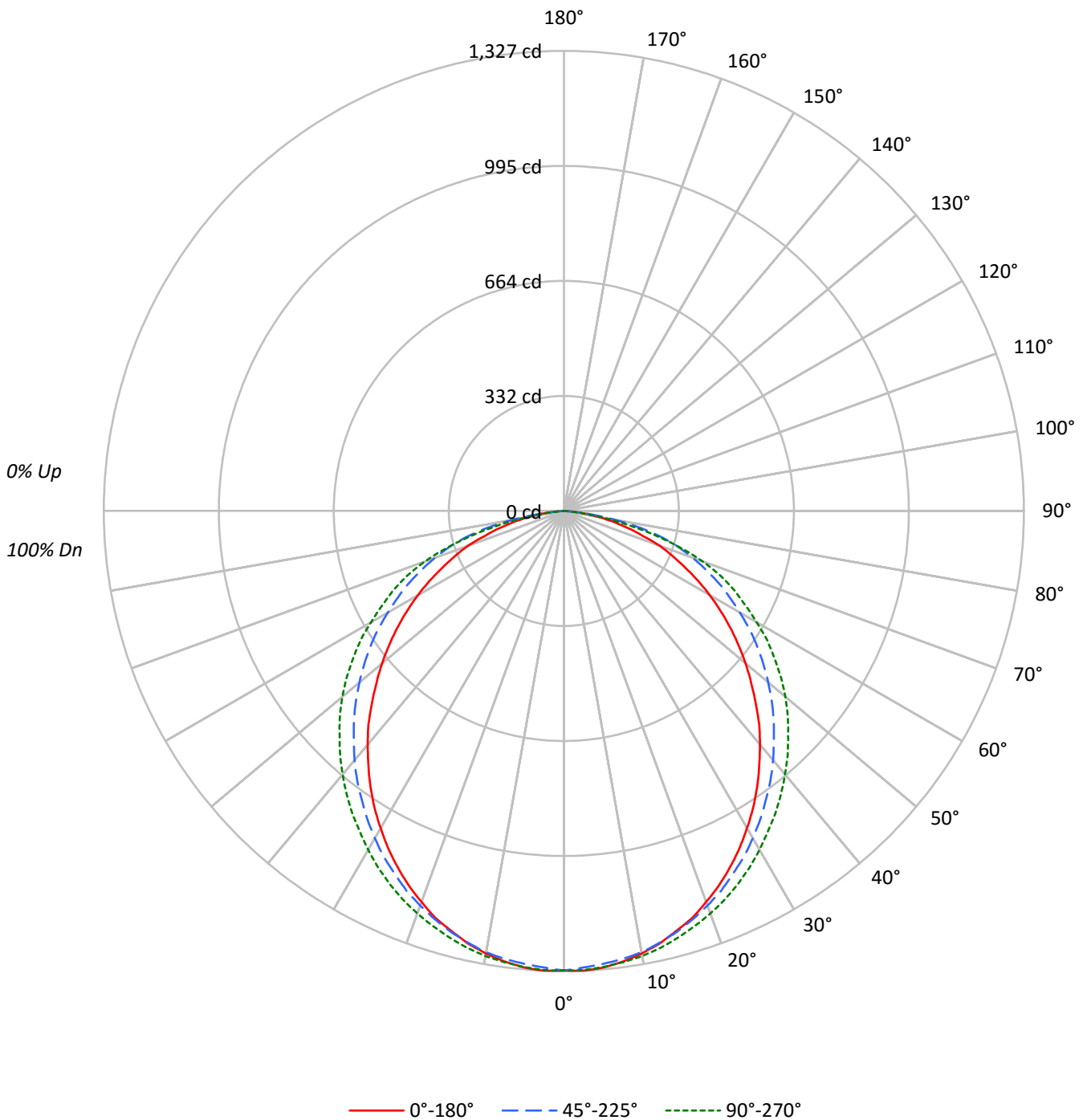
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3567	3567	3567
5°	3571	3541	3566
10°	3541	3531	3562
15°	3493	3503	3549
20°	3437	3469	3538
25°	3367	3427	3526
30°	3283	3386	3507
35°	3193	3338	3496
40°	3091	3298	3486
45°	2978	3258	3482
50°	2867	3221	3491
55°	2746	3195	3481
60°	2616	3151	3458
65°	2462	3142	3458
70°	2318	3114	3360
75°	2010	3043	2871
80°	1626	2453	1911
85°	1081	852	568



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.2	3.4
10°-20°	356.2	9.6
20°-30°	534.3	14.4
30°-40°	637.3	17.2
40°-50°	658.9	17.7
50°-60°	601.5	16.2
60°-70°	473.4	12.7
70°-80°	275.6	7.4
80°-90°	50.8	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°	1015.6	27.4
0°-40°	1652.9	44.5
0°-60°	2913.3	78.5
0°-90°	3713.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3713.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1326	1326	1326	1326	1326	
5°	1322	1318	1311	1322	1320	125
15°	1254	1256	1257	1274	1274	354
25°	1134	1140	1154	1182	1187	522
35°	972	985	1016	1055	1064	608
45°	782	808	856	904	915	604
55°	585	617	681	731	742	523
65°	387	427	493	532	543	384
75°	193	239	293	287	276	205
85°	35	50	28	22	18	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1325.5	1325.5	1325.5	1325.5	1325.5
2.5°	1327.3	1323.6	1318.1	1327.3	1325.5
5°	1321.8	1318.1	1310.8	1321.8	1320.0
7.5°	1310.8	1307.1	1303.4	1314.4	1312.6
10°	1296.0	1294.2	1292.3	1305.2	1303.4
12.5°	1277.6	1277.6	1275.8	1290.5	1290.5
15°	1253.7	1255.5	1257.4	1273.9	1273.9
17.5°	1231.6	1229.8	1235.3	1253.7	1255.5
20°	1200.3	1204.0	1211.3	1233.4	1235.3
22.5°	1169.0	1172.7	1185.6	1207.7	1213.2
25°	1134.0	1139.5	1154.3	1181.9	1187.4
27.5°	1097.2	1104.6	1124.8	1154.3	1159.8
30°	1056.7	1067.7	1089.8	1123.0	1128.5
32.5°	1016.2	1027.2	1054.9	1088.0	1095.4
35°	972.0	984.9	1016.2	1054.9	1064.1
37.5°	926.0	942.6	979.4	1018.0	1029.1
40°	880.0	898.4	938.9	979.4	992.3
42.5°	833.9	852.4	896.5	942.6	955.4
45°	782.4	808.2	856.0	903.9	914.9
47.5°	732.7	760.3	813.7	861.6	876.3
50°	684.8	712.4	769.5	819.2	833.9
52.5°	635.1	664.6	725.3	776.9	789.8
55°	585.4	616.7	681.1	730.9	741.9
57.5°	535.7	568.9	635.1	683.0	695.9
60°	486.0	521.0	585.4	633.3	642.5
62.5°	436.3	473.1	539.4	581.7	590.9
65°	386.6	427.1	493.4	532.0	543.1
67.5°	338.7	379.2	443.7	480.5	489.7
70°	294.6	331.4	395.8	423.4	427.1
72.5°	239.3	285.3	347.9	362.7	353.5
75°	193.3	239.3	292.7	287.2	276.1
77.5°	147.3	193.3	228.3	209.9	195.1
80°	104.9	151.0	158.3	130.7	123.3
82.5°	68.1	104.9	88.4	68.1	55.2
85°	35.0	49.7	27.6	22.1	18.4
87.5°	11.0	7.4	3.7	3.7	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)