

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: P308043

Luminaire Tested: **14FCZ2-44-UNV-L82765-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: P308043
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-L82765-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: 3710.0 lumens
Efficiency: N/A
Efficacy: 97.6 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

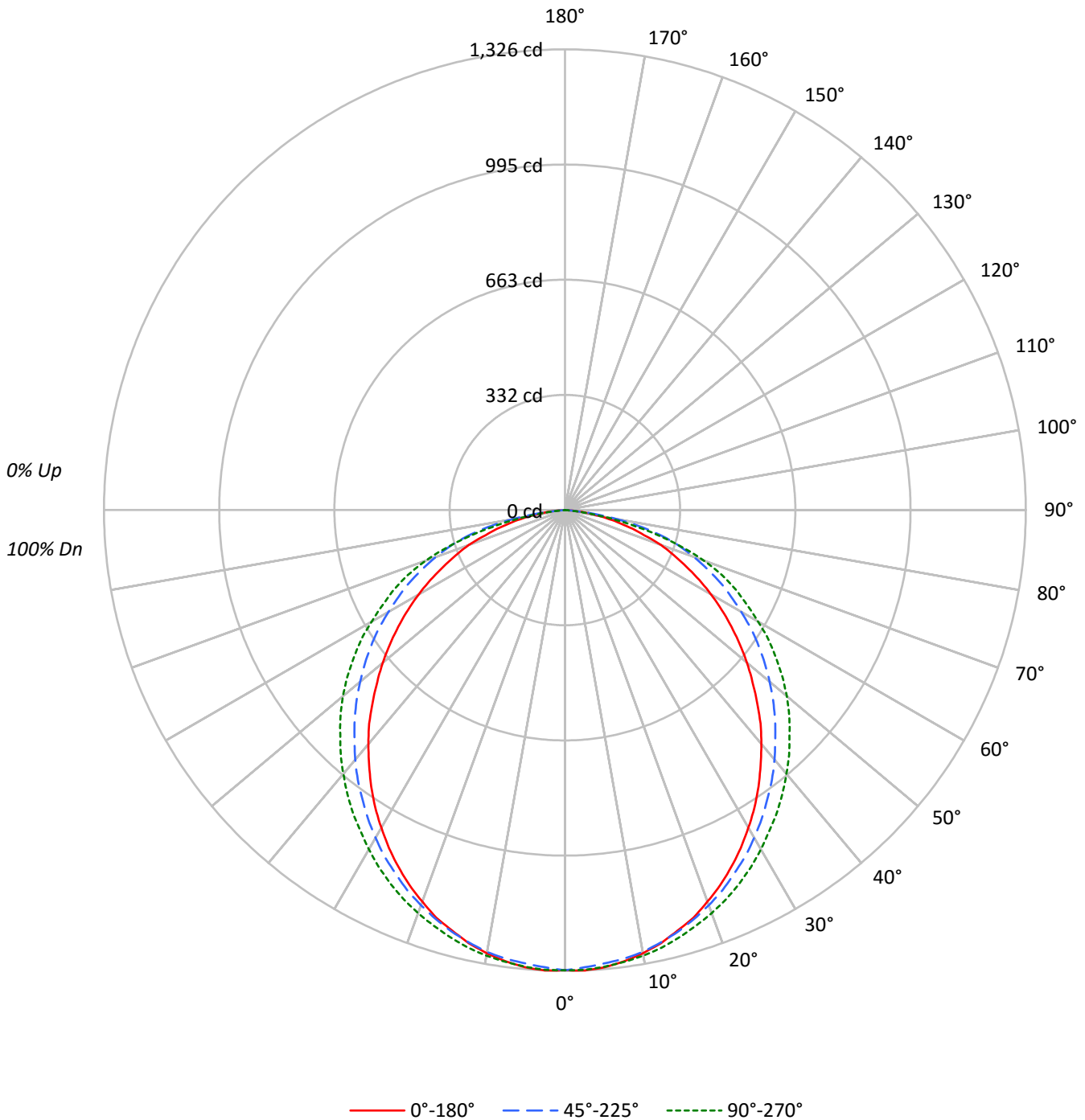
Input Watts (W): 38
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3564	3564	3564
5°	3568	3538	3563
10°	3539	3528	3559
15°	3490	3500	3546
20°	3434	3466	3535
25°	3364	3424	3523
30°	3281	3384	3504
35°	3190	3336	3493
40°	3089	3295	3483
45°	2975	3255	3479
50°	2865	3219	3489
55°	2744	3193	3478
60°	2613	3148	3455
65°	2460	3139	3455
70°	2316	3112	3358
75°	2008	3041	2869
80°	1624	2452	1909
85°	1078	852	568



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.1	3.4
10°-20°	355.9	9.6
20°-30°	533.8	14.4
30°-40°	636.8	17.2
40°-50°	658.3	17.7
50°-60°	601.0	16.2
60°-70°	473.0	12.7
70°-80°	275.3	7.4
80°-90°	50.7	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°	1014.8	27.4
0°-40°	1651.6	44.5
0°-60°	2910.9	78.5
0°-90°	3710.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3710.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1324	1324	1324	1324	1324	
5°	1321	1317	1310	1321	1319	125
15°	1253	1254	1256	1273	1273	353
25°	1133	1139	1153	1181	1186	522
35°	971	984	1015	1054	1063	607
45°	782	808	855	903	914	604
55°	585	616	681	730	741	523
65°	386	427	493	532	543	384
75°	193	239	292	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°	1324.4	1324.4	1324.4	1324.4	1324.4
2.5°	1326.2	1322.6	1317.1	1326.2	1324.4
5°	1320.7	1317.1	1309.7	1320.7	1318.9
7.5°	1309.7	1306.0	1302.3	1313.4	1311.5
10°	1295.0	1293.1	1291.3	1304.2	1302.3
12.5°	1276.6	1276.6	1274.7	1289.5	1289.5
15°	1252.7	1254.5	1256.3	1272.9	1272.9
17.5°	1230.6	1228.8	1234.3	1252.7	1254.5
20°	1199.3	1203.0	1210.4	1232.4	1234.3
22.5°	1168.1	1171.7	1184.6	1206.7	1212.2
25°	1133.1	1138.6	1153.3	1180.9	1186.4
27.5°	1096.3	1103.7	1123.9	1153.3	1158.9
30°	1055.8	1066.9	1089.0	1122.1	1127.6
32.5°	1015.4	1026.4	1054.0	1087.1	1094.5
35°	971.2	984.1	1015.4	1054.0	1063.2
37.5°	925.2	941.8	978.6	1017.2	1028.3
40°	879.3	897.7	938.1	978.6	991.5
42.5°	833.3	851.7	895.8	941.8	954.7
45°	781.8	807.5	855.3	903.2	914.2
47.5°	732.1	759.7	813.0	860.9	875.6
50°	684.3	711.9	768.9	818.6	833.3
52.5°	634.6	664.0	724.7	776.3	789.1
55°	584.9	616.2	680.6	730.3	741.3
57.5°	535.3	568.4	634.6	682.4	695.3
60°	485.6	520.6	584.9	632.8	642.0
62.5°	436.0	472.7	539.0	581.3	590.5
65°	386.3	426.8	493.0	531.6	542.6
67.5°	338.5	378.9	443.3	480.1	489.3
70°	294.3	331.1	395.5	423.1	426.8
72.5°	239.1	285.1	347.7	362.4	353.2
75°	193.1	239.1	292.5	287.0	275.9
77.5°	147.2	193.1	228.1	209.7	195.0
80°	104.8	150.8	158.2	130.6	123.2
82.5°	68.1	104.8	88.3	68.1	55.2
85°	34.9	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)