

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: P308044

Luminaire Tested: **14FCZ2-44-UNV-L82765-S-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: P308044
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-3500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH 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: 3838.0 lumens
Efficiency: N/A
Efficacy: 99.7 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

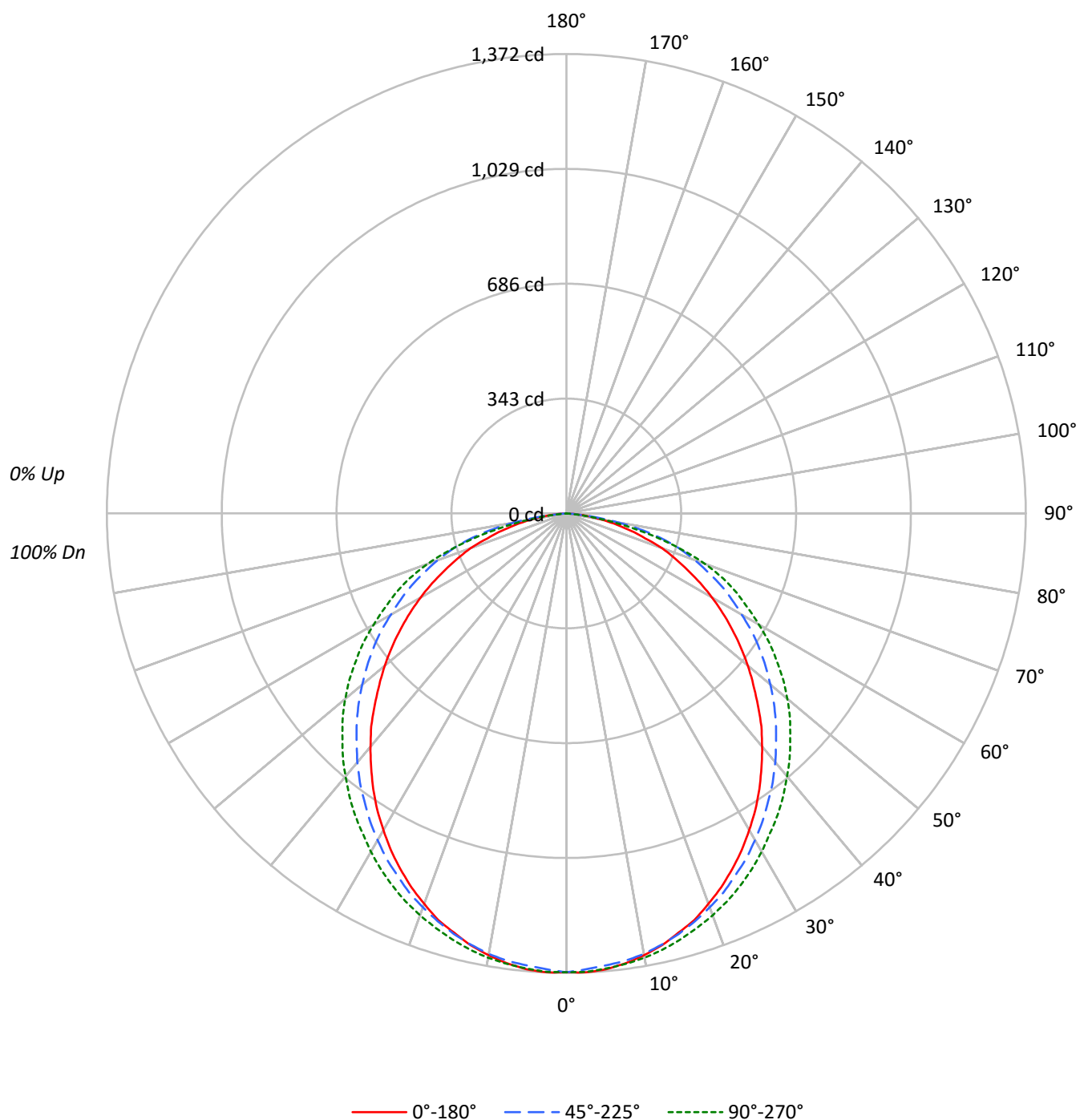
Input Watts (W): 38.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	109	104	100	96	106	102	98	94	97	94	91		94	91	89		84
2	99	90	84	78	96	89	82	77	85	80	75		82	77	73		70
3	90	79	71	65	87	78	70	64	75	68	63		72	66	62		58
4	82	70	61	55	80	69	61	54	66	59	53		64	58	53		50
5	76	63	54	47	74	62	53	47	59	52	46		57	51	46		43
6	70	56	47	41	68	55	47	41	54	46	40		52	45	40		38
7	65	51	42	36	63	50	42	36	49	41	36		47	41	35		33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		27
10	53	40	32	26	52	39	31	26	38	31	26		37	31	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3687	3687	3687
5°	3691	3660	3686
10°	3661	3650	3681
15°	3610	3621	3668
20°	3553	3586	3657
25°	3480	3543	3644
30°	3394	3500	3625
35°	3301	3451	3613
40°	3195	3409	3603
45°	3078	3368	3599
50°	2964	3330	3609
55°	2839	3303	3598
60°	2704	3257	3574
65°	2544	3247	3575
70°	2396	3219	3474
75°	2077	3146	2967
80°	1681	2537	1976
85°	1118	880	587



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.4	3.4
10°-20°	368.2	9.6
20°-30°	552.2	14.4
30°-40°	658.8	17.2
40°-50°	681.0	17.7
50°-60°	621.8	16.2
60°-70°	489.3	12.7
70°-80°	284.9	7.4
80°-90°	52.5	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°	1049.8	27.4
0°-40°	1708.5	44.5
0°-60°	3011.4	78.5
0°-90°	3838.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3838.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1370	1370	1370	1370	1370	
5°	1366	1362	1355	1366	1364	130
15°	1296	1298	1300	1317	1317	366
25°	1172	1178	1193	1222	1227	540
35°	1005	1018	1050	1090	1100	628
45°	809	835	885	934	946	625
55°	605	638	704	756	767	541
65°	400	442	510	550	561	397
75°	200	247	303	297	285	212
85°	36	51	28	23	19	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1370.1	1370.1	1370.1	1370.1	1370.1
2.5°	1372.0	1368.2	1362.5	1372.0	1370.1
5°	1366.3	1362.5	1354.9	1366.3	1364.4
7.5°	1354.9	1351.1	1347.3	1358.7	1356.8
10°	1339.7	1337.8	1335.8	1349.2	1347.3
12.5°	1320.6	1320.6	1318.7	1333.9	1333.9
15°	1295.9	1297.8	1299.7	1316.8	1316.8
17.5°	1273.1	1271.2	1276.9	1295.9	1297.8
20°	1240.7	1244.5	1252.1	1275.0	1276.9
22.5°	1208.4	1212.2	1225.5	1248.3	1254.0
25°	1172.2	1177.9	1193.1	1221.7	1227.4
27.5°	1134.1	1141.8	1162.7	1193.1	1198.8
30°	1092.3	1103.7	1126.5	1160.8	1166.5
32.5°	1050.4	1061.8	1090.4	1124.6	1132.2
35°	1004.7	1018.1	1050.4	1090.4	1099.9
37.5°	957.2	974.3	1012.4	1052.3	1063.7
40°	909.6	928.6	970.5	1012.4	1025.7
42.5°	862.0	881.1	926.7	974.3	987.6
45°	808.7	835.4	884.9	934.3	945.8
47.5°	757.4	785.9	841.1	890.6	905.8
50°	707.9	736.4	795.4	846.8	862.0
52.5°	656.5	687.0	749.8	803.0	816.4
55°	605.1	637.5	704.1	755.5	766.9
57.5°	553.7	588.0	656.5	706.0	719.3
60°	502.4	538.5	605.1	654.6	664.1
62.5°	451.0	489.1	557.6	601.3	610.8
65°	399.6	441.5	510.0	549.9	561.4
67.5°	350.1	392.0	458.6	496.7	506.2
70°	304.5	342.5	409.1	437.7	441.5
72.5°	247.4	295.0	359.7	374.9	365.4
75°	199.8	247.4	302.6	296.9	285.4
77.5°	152.2	199.8	236.0	216.9	201.7
80°	108.5	156.0	163.7	135.1	127.5
82.5°	70.4	108.5	91.3	70.4	57.1
85°	36.2	51.4	28.5	22.8	19.0
87.5°	11.4	7.6	3.8	3.8	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)