

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: P308045

Luminaire Tested: **14FCZ2-44-UNV-L82765-S-CP187-W2A-U-4000K**

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: P308045
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-4000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.187" POLYCARB SHEET
Light Source: (168) 4000K 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: 3922.0 lumens
Efficiency: N/A
Efficacy: 101.3 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

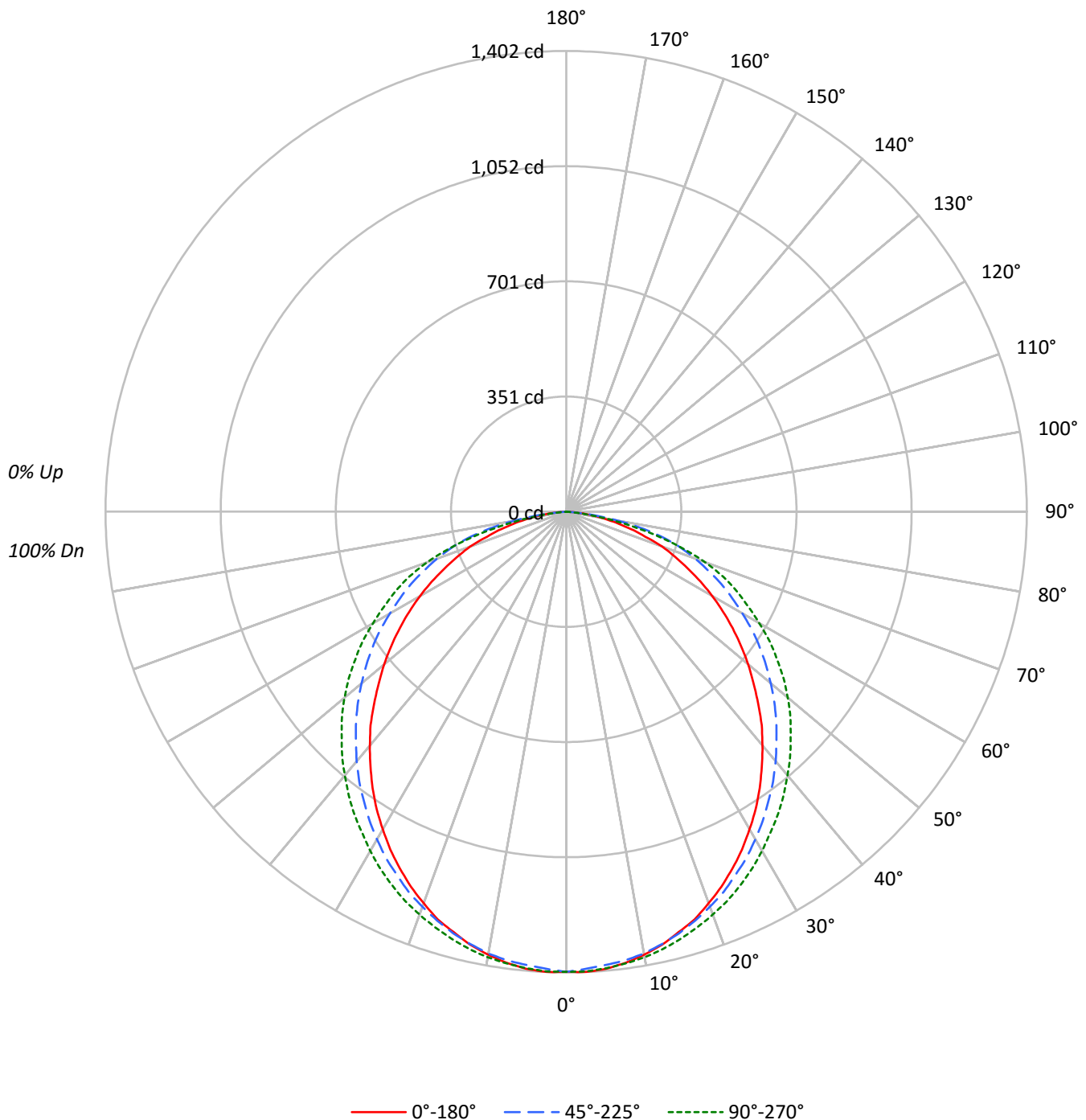
Input Watts (W): 38.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3768	3768	3768
5°	3771	3740	3766
10°	3741	3730	3762
15°	3689	3700	3749
20°	3631	3664	3737
25°	3557	3620	3724
30°	3468	3577	3704
35°	3373	3526	3692
40°	3265	3484	3682
45°	3145	3441	3678
50°	3028	3403	3688
55°	2901	3376	3677
60°	2763	3328	3653
65°	2600	3318	3652
70°	2448	3290	3549
75°	2123	3215	3033
80°	1717	2591	2019
85°	1139	902	599



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.2	3.4
10°-20°	376.2	9.6
20°-30°	564.3	14.4
30°-40°	673.2	17.2
40°-50°	695.9	17.7
50°-60°	635.4	16.2
60°-70°	500.0	12.7
70°-80°	291.1	7.4
80°-90°	53.6	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°	1072.7	27.4
0°-40°	1745.9	44.5
0°-60°	3077.2	78.5
0°-90°	3922.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3922.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1400	1400	1400	1400	1400	
5°	1396	1392	1384	1396	1394	132
15°	1324	1326	1328	1346	1346	374
25°	1198	1204	1219	1248	1254	552
35°	1027	1040	1073	1114	1124	642
45°	826	854	904	955	966	638
55°	618	651	720	772	784	553
65°	408	451	521	562	574	406
75°	204	253	309	303	292	217
85°	37	52	29	23	19	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1400.1	1400.1	1400.1	1400.1	1400.1
2.5°	1402.0	1398.1	1392.3	1402.0	1400.1
5°	1396.2	1392.3	1384.5	1396.2	1394.3
7.5°	1384.5	1380.6	1376.8	1388.4	1386.5
10°	1369.0	1367.0	1365.1	1378.7	1376.8
12.5°	1349.5	1349.5	1347.6	1363.1	1363.1
15°	1324.3	1326.2	1328.1	1345.6	1345.6
17.5°	1300.9	1299.0	1304.8	1324.3	1326.2
20°	1267.9	1271.7	1279.5	1302.9	1304.8
22.5°	1234.8	1238.7	1252.3	1275.6	1281.5
25°	1197.9	1203.7	1219.2	1248.4	1254.2
27.5°	1159.0	1166.7	1188.1	1219.2	1225.1
30°	1116.2	1127.8	1151.2	1186.2	1192.0
32.5°	1073.4	1085.1	1114.2	1149.2	1157.0
35°	1026.7	1040.3	1073.4	1114.2	1124.0
37.5°	978.1	995.6	1034.5	1075.3	1087.0
40°	929.5	948.9	991.7	1034.5	1048.1
42.5°	880.9	900.3	947.0	995.6	1009.2
45°	826.4	853.7	904.2	954.8	966.5
47.5°	773.9	803.1	859.5	910.1	925.6
50°	723.4	752.5	812.8	865.3	880.9
52.5°	670.9	702.0	766.2	820.6	834.2
55°	618.4	651.4	719.5	772.0	783.7
57.5°	565.9	600.9	670.9	721.4	735.0
60°	513.4	550.3	618.4	668.9	678.7
62.5°	460.9	499.8	569.8	614.5	624.2
65°	408.4	451.1	521.1	562.0	573.6
67.5°	357.8	400.6	468.6	507.5	517.3
70°	311.1	350.0	418.1	447.3	451.1
72.5°	252.8	301.4	367.5	383.1	373.4
75°	204.2	252.8	309.2	303.4	291.7
77.5°	155.6	204.2	241.1	221.7	206.1
80°	110.8	159.5	167.2	138.1	130.3
82.5°	71.9	110.8	93.3	71.9	58.3
85°	36.9	52.5	29.2	23.3	19.4
87.5°	11.7	7.8	3.9	3.9	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)