

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: P308003

Luminaire Tested: **14FCZ2-39-UNV-L82765-S-CP187-W2A-U-5500K**

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: P308003
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: 14FCZ2-39-UNV-L82765-S-CP187-W2A-U-5500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.187" POLYCARB SHEET
Light Source: (168) 5500K 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: 3655.0 lumens
Efficiency: N/A
Efficacy: 106.9 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

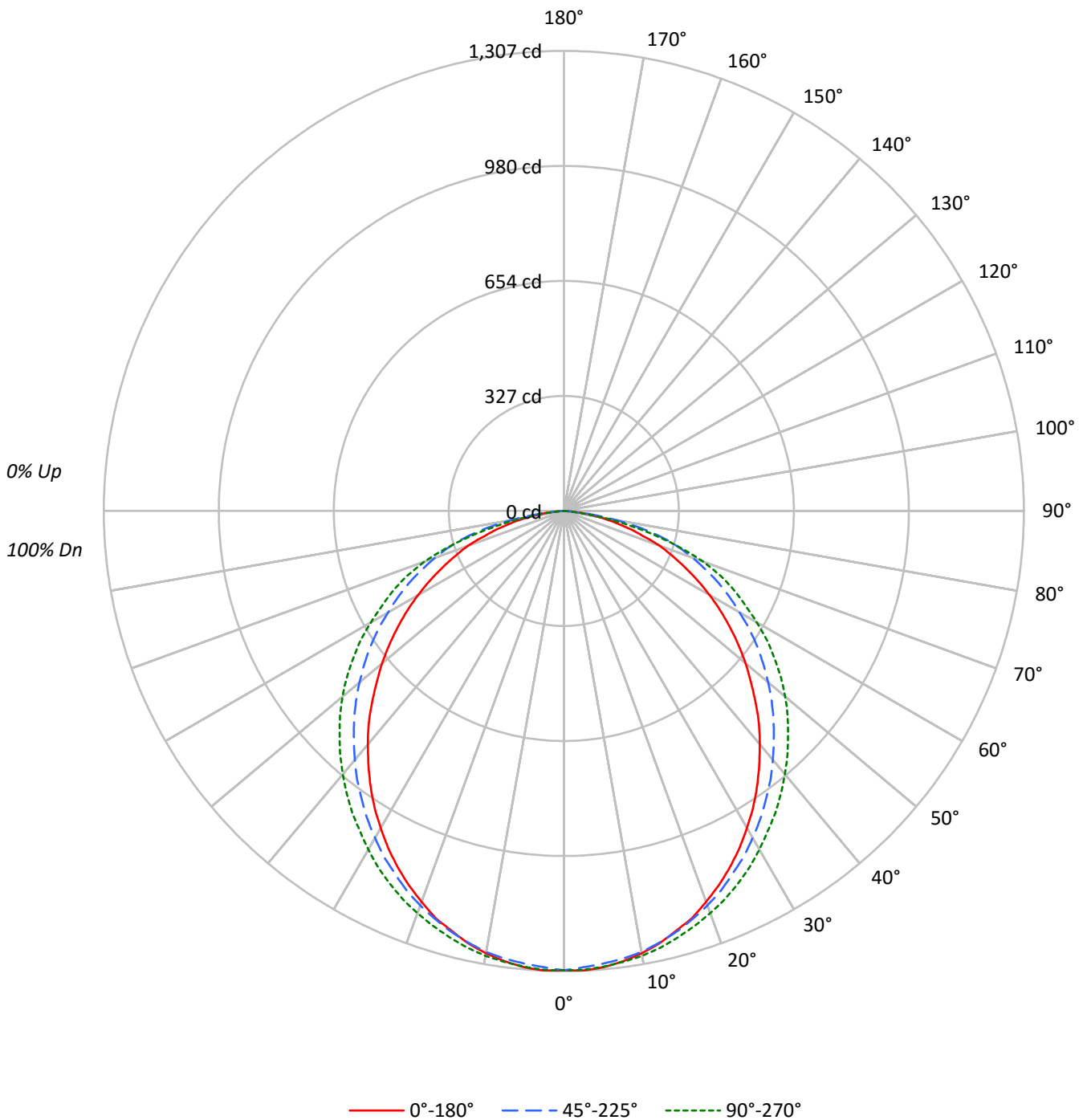
Input Watts (W): 34.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3511	3511	3511
5°	3515	3485	3510
10°	3486	3476	3506
15°	3438	3448	3494
20°	3383	3415	3482
25°	3314	3374	3471
30°	3232	3333	3452
35°	3143	3286	3441
40°	3043	3247	3431
45°	2931	3207	3428
50°	2822	3171	3437
55°	2704	3146	3426
60°	2575	3102	3404
65°	2423	3093	3404
70°	2281	3065	3308
75°	1979	2995	2826
80°	1601	2414	1881
85°	1062	840	559



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.2	3.4
10°-20°	350.6	9.6
20°-30°	525.9	14.4
30°-40°	627.4	17.2
40°-50°	648.6	17.7
50°-60°	592.1	16.2
60°-70°	466.0	12.7
70°-80°	271.3	7.4
80°-90°	50.0	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°	999.7	27.4
0°-40°	1627.1	44.5
0°-60°	2867.8	78.5
0°-90°	3655.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3655.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1305	1305	1305	1305	1305	
5°	1301	1298	1290	1301	1299	123
15°	1234	1236	1238	1254	1254	348
25°	1116	1122	1136	1163	1169	514
35°	957	970	1000	1038	1047	598
45°	770	796	843	890	901	595
55°	576	607	670	719	730	515
65°	381	420	486	524	535	378
75°	190	236	288	283	272	202
85°	34	49	27	22	18	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1304.8	1304.8	1304.8	1304.8	1304.8
2.5°	1306.6	1303.0	1297.5	1306.6	1304.8
5°	1301.1	1297.5	1290.3	1301.1	1299.3
7.5°	1290.3	1286.7	1283.0	1293.9	1292.1
10°	1275.8	1274.0	1272.2	1284.8	1283.0
12.5°	1257.7	1257.7	1255.8	1270.3	1270.3
15°	1234.1	1235.9	1237.7	1254.0	1254.0
17.5°	1212.4	1210.5	1216.0	1234.1	1235.9
20°	1181.5	1185.2	1192.4	1214.2	1216.0
22.5°	1150.7	1154.4	1167.0	1188.8	1194.2
25°	1116.3	1121.7	1136.2	1163.4	1168.9
27.5°	1080.1	1087.3	1107.2	1136.2	1141.7
30°	1040.2	1051.1	1072.8	1105.4	1110.9
32.5°	1000.3	1011.2	1038.4	1071.0	1078.3
35°	956.8	969.5	1000.3	1038.4	1047.4
37.5°	911.5	927.8	964.1	1002.1	1013.0
40°	866.2	884.3	924.2	964.1	976.8
42.5°	820.9	839.0	882.5	927.8	940.5
45°	770.2	795.5	842.7	889.8	900.7
47.5°	721.3	748.4	801.0	848.1	862.6
50°	674.1	701.3	757.5	806.4	820.9
52.5°	625.2	654.2	714.0	764.7	777.4
55°	576.3	607.1	670.5	719.4	730.3
57.5°	527.3	560.0	625.2	672.3	685.0
60°	478.4	512.8	576.3	623.4	632.5
62.5°	429.5	465.7	531.0	572.7	581.7
65°	380.6	420.4	485.7	523.7	534.6
67.5°	333.4	373.3	436.7	473.0	482.0
70°	289.9	326.2	389.6	416.8	420.4
72.5°	235.6	280.9	342.5	357.0	347.9
75°	190.3	235.6	288.1	282.7	271.8
77.5°	145.0	190.3	224.7	206.6	192.1
80°	103.3	148.6	155.8	128.7	121.4
82.5°	67.1	103.3	87.0	67.1	54.4
85°	34.4	48.9	27.2	21.7	18.1
87.5°	10.9	7.2	3.6	3.6	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)