

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: P307704

Luminaire Tested: **14FCZ2-39-UNV-L82765-CA08-W2A-U-4500K**

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: P307704
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
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-CA08-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 4500K 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: 3776.0 lumens
Efficiency: N/A
Efficacy: 111.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

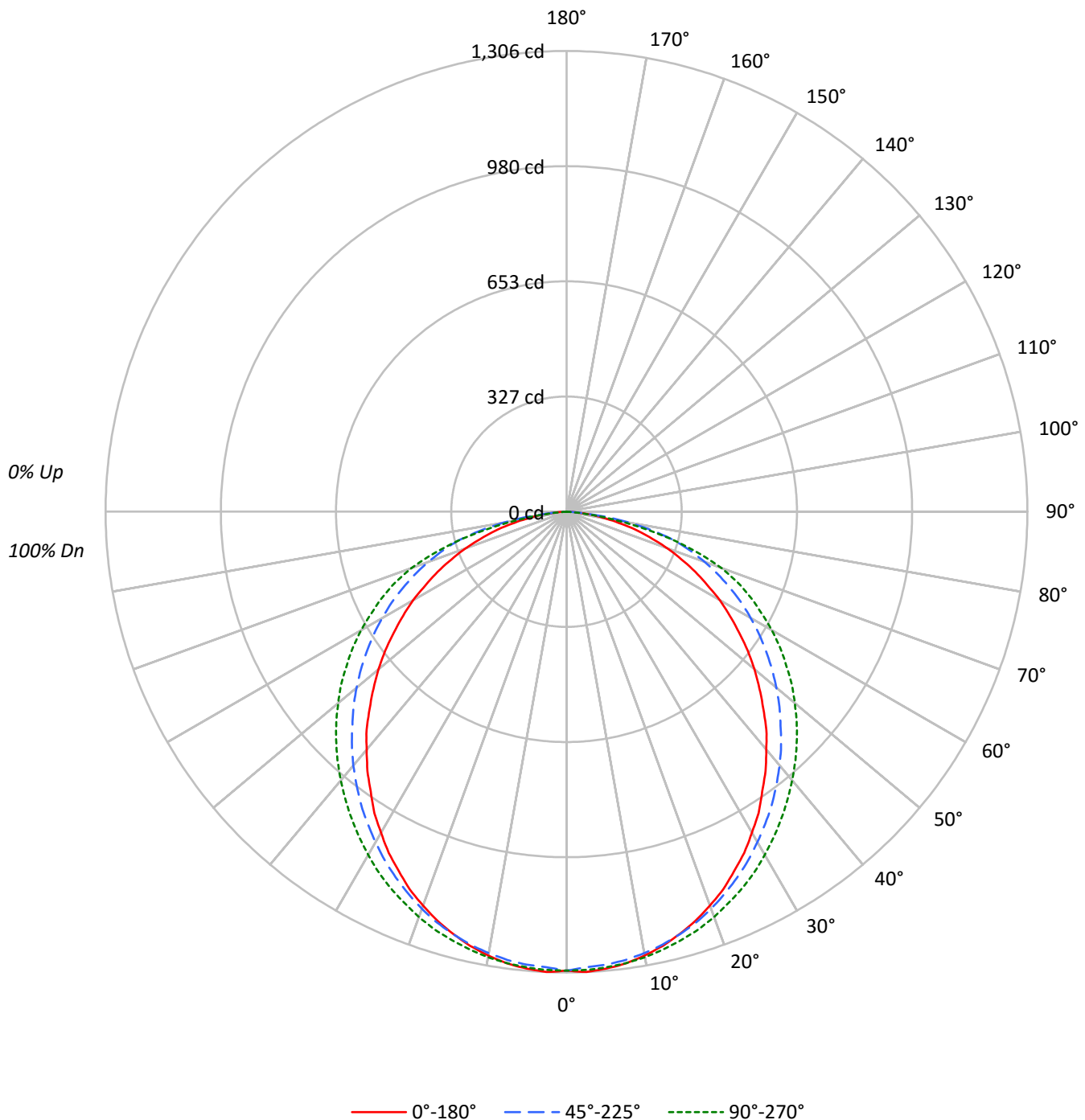
Input Watts (W): 33.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91		93	90	88		83
2	98	90	83	77	96	88	82	76	84	79	74		81	77	73		69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	79	68	60	53	66	58	53		63	57	52		49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		32
8	60	46	37	32	58	45	37	31	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	39	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3500	3500	3500
5°	3512	3482	3502
10°	3490	3472	3504
15°	3453	3455	3502
20°	3402	3431	3501
25°	3337	3397	3497
30°	3265	3362	3490
35°	3178	3333	3488
40°	3094	3301	3493
45°	2999	3265	3512
50°	2912	3250	3535
55°	2801	3239	3567
60°	2701	3245	3616
65°	2563	3254	3672
70°	2404	3279	3670
75°	2180	3309	3318
80°	1787	2858	2362
85°	1325	1352	546



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.1	3.3
10°-20°	351.6	9.3
20°-30°	529.7	14.0
30°-40°	635.6	16.8
40°-50°	662.5	17.5
50°-60°	613.3	16.2
60°-70°	495.6	13.1
70°-80°	302.1	8.0
80°-90°	62.4	1.7
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°	1004.4	26.6
0°-40°	1640.1	43.4
0°-60°	2915.9	77.2
0°-90°	3776.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3776.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1301	1301	1301	1301	1301	
5°	1300	1297	1289	1298	1297	123
15°	1239	1240	1240	1257	1257	349
25°	1124	1131	1144	1173	1178	518
35°	967	983	1015	1052	1062	606
45°	788	812	858	906	923	609
55°	597	628	690	744	760	535
65°	402	442	511	562	577	398
75°	210	256	318	323	319	220
85°	43	64	44	24	18	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1300.8	1300.8	1300.8	1300.8	1300.8
2.5°	1305.9	1301.7	1292.4	1301.7	1300.0
5°	1300.0	1296.6	1289.1	1298.3	1296.6
7.5°	1291.6	1288.2	1281.5	1292.4	1290.7
10°	1277.3	1275.6	1270.5	1283.2	1282.3
12.5°	1260.4	1259.6	1257.1	1271.4	1270.5
15°	1239.4	1240.2	1240.2	1257.1	1257.1
17.5°	1215.8	1217.5	1220.9	1239.4	1241.9
20°	1188.0	1191.4	1198.1	1219.2	1222.5
22.5°	1159.4	1161.9	1172.0	1197.3	1200.6
25°	1124.0	1130.8	1144.2	1172.9	1177.9
27.5°	1090.4	1096.2	1114.8	1144.2	1152.7
30°	1050.8	1060.0	1081.9	1113.9	1123.2
32.5°	1012.9	1023.0	1048.3	1085.3	1093.7
35°	967.4	982.6	1014.6	1051.6	1061.7
37.5°	926.2	940.5	976.7	1017.1	1028.9
40°	880.7	898.4	939.6	982.6	994.4
42.5°	838.6	855.4	900.1	943.8	959.8
45°	788.1	811.7	858.0	906.0	922.8
47.5°	741.8	765.4	818.4	869.8	884.9
50°	695.5	720.7	776.3	829.3	844.5
52.5°	647.5	674.4	734.2	787.2	804.9
55°	597.0	628.1	690.4	744.3	760.3
57.5°	549.0	581.0	647.5	702.2	718.2
60°	501.8	534.7	602.9	655.1	671.9
62.5°	449.6	488.3	559.1	610.4	623.1
65°	402.5	442.0	511.1	562.4	576.7
67.5°	352.8	395.7	464.8	511.9	525.4
70°	305.6	350.3	416.8	460.6	466.5
72.5°	255.1	300.6	367.9	395.7	395.7
75°	209.7	256.0	318.3	323.3	319.1
77.5°	160.0	211.3	251.7	241.6	231.5
80°	115.3	165.9	184.4	165.9	152.4
82.5°	77.5	120.4	111.1	88.4	78.3
85°	42.9	64.0	43.8	24.4	17.7
87.5°	16.0	14.3	4.2	4.2	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)