

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: P308021

Luminaire Tested: **14FCZ2-44-UNV-L82765-S-CA08-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: P308021
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-CA08-W2A-U-5500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.08" ACRYLIC 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: 4367.0 lumens
Efficiency: N/A
Efficacy: 110.8 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

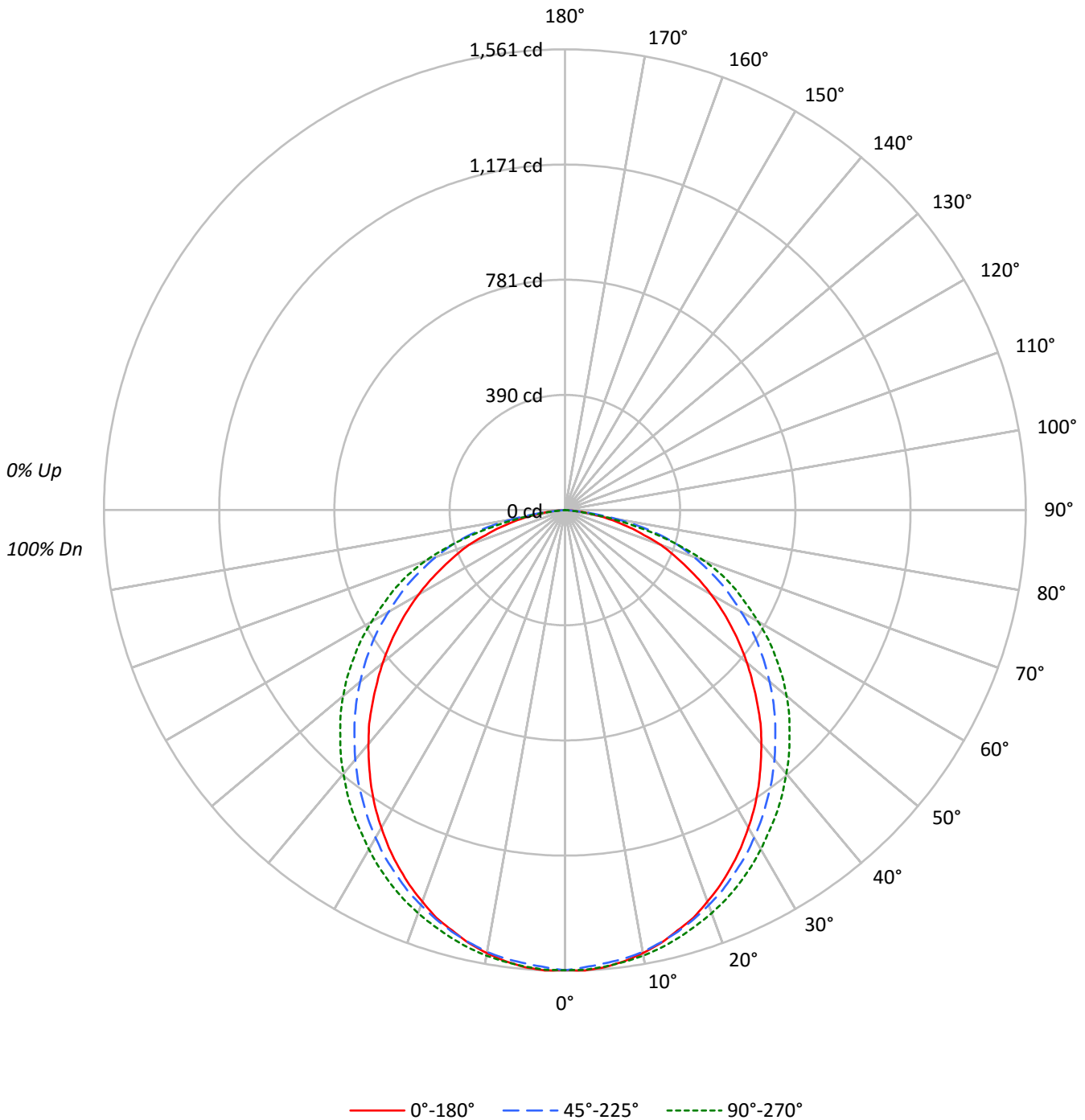
Input Watts (W): 39.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4195	4195	4195
5°	4199	4164	4194
10°	4165	4153	4189
15°	4108	4120	4174
20°	4043	4080	4161
25°	3960	4031	4147
30°	3862	3983	4124
35°	3756	3926	4111
40°	3636	3879	4099
45°	3502	3831	4095
50°	3372	3789	4106
55°	3230	3758	4094
60°	3076	3705	4067
65°	2895	3695	4067
70°	2725	3663	3952
75°	2363	3580	3377
80°	1912	2885	2249
85°	1269	1003	670



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.2	3.4
10°-20°	418.9	9.6
20°-30°	628.4	14.4
30°-40°	749.6	17.2
40°-50°	774.9	17.7
50°-60°	707.5	16.2
60°-70°	556.8	12.7
70°-80°	324.1	7.4
80°-90°	59.7	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°	1194.5	27.4
0°-40°	1944.0	44.5
0°-60°	3426.4	78.5
0°-90°	4367.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4367.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1559	1559	1559	1559	1559	
5°	1555	1550	1542	1555	1552	147
15°	1474	1477	1479	1498	1498	416
25°	1334	1340	1358	1390	1397	614
35°	1143	1158	1195	1241	1252	715
45°	920	950	1007	1063	1076	711
55°	688	725	801	860	873	616
65°	455	502	580	626	639	452
75°	227	282	344	338	325	242
85°	41	58	32	26	22	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1558.9	1558.9	1558.9	1558.9	1558.9
2.5°	1561.1	1556.8	1550.3	1561.1	1558.9
5°	1554.6	1550.3	1541.6	1554.6	1552.5
7.5°	1541.6	1537.3	1533.0	1546.0	1543.8
10°	1524.3	1522.1	1520.0	1535.1	1533.0
12.5°	1502.7	1502.7	1500.5	1517.8	1517.8
15°	1474.5	1476.7	1478.8	1498.3	1498.3
17.5°	1448.5	1446.4	1452.9	1474.5	1476.7
20°	1411.7	1416.0	1424.7	1450.7	1452.9
22.5°	1374.9	1379.2	1394.4	1420.4	1426.9
25°	1333.8	1340.3	1357.6	1390.1	1396.6
27.5°	1290.5	1299.1	1322.9	1357.6	1364.1
30°	1242.8	1255.8	1281.8	1320.8	1327.3
32.5°	1195.2	1208.2	1240.7	1279.6	1288.3
35°	1143.2	1158.4	1195.2	1240.7	1251.5
37.5°	1089.1	1108.6	1151.9	1197.4	1210.3
40°	1035.0	1056.6	1104.3	1151.9	1167.0
42.5°	980.8	1002.5	1054.5	1108.6	1123.7
45°	920.2	950.5	1006.8	1063.1	1076.1
47.5°	861.8	894.2	957.0	1013.3	1030.6
50°	805.5	837.9	905.1	963.5	980.8
52.5°	747.0	781.6	853.1	913.7	928.9
55°	688.5	725.3	801.1	859.6	872.6
57.5°	630.1	669.0	747.0	803.3	818.4
60°	571.6	612.8	688.5	744.8	755.7
62.5°	513.2	556.5	634.4	684.2	695.0
65°	454.7	502.3	580.3	625.7	638.7
67.5°	398.4	446.0	521.8	565.1	575.9
70°	346.4	389.7	465.5	498.0	502.3
72.5°	281.5	335.6	409.2	426.5	415.7
75°	227.3	281.5	344.3	337.8	324.8
77.5°	173.2	227.3	268.5	246.8	229.5
80°	123.4	177.5	186.2	153.7	145.1
82.5°	80.1	123.4	103.9	80.1	65.0
85°	41.1	58.5	32.5	26.0	21.7
87.5°	13.0	8.7	4.3	4.3	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)