

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: P308023

Luminaire Tested: **14FCZ2-44-UNV-L82765-S-CA08-W2A-U-6500K**

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: P308023
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-6500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 6500K 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: 4389.0 lumens
Efficiency: N/A
Efficacy: 109.7 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

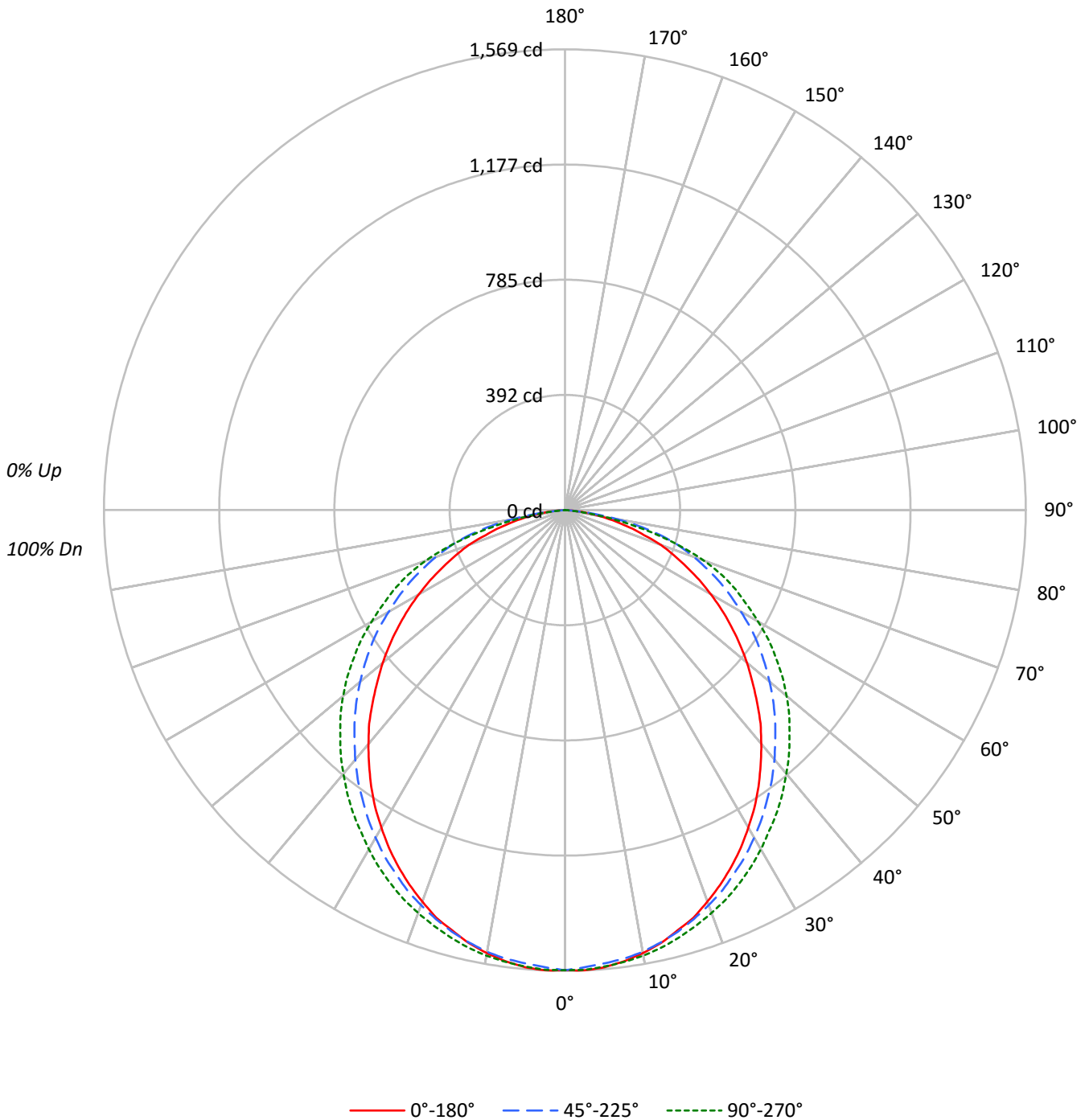
Input Watts (W): 40
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4216	4216	4216
5°	4220	4185	4215
10°	4186	4174	4210
15°	4128	4141	4195
20°	4063	4101	4182
25°	3980	4051	4168
30°	3881	4003	4145
35°	3775	3946	4132
40°	3654	3899	4120
45°	3519	3851	4116
50°	3389	3808	4127
55°	3247	3778	4115
60°	3092	3724	4088
65°	2910	3713	4088
70°	2740	3681	3973
75°	2376	3597	3394
80°	1922	2899	2259
85°	1275	1007	673



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.0	3.4
10°-20°	421.0	9.6
20°-30°	631.5	14.4
30°-40°	753.3	17.2
40°-50°	778.8	17.7
50°-60°	711.1	16.2
60°-70°	559.6	12.7
70°-80°	325.7	7.4
80°-90°	60.0	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°	1200.5	27.4
0°-40°	1953.8	44.5
0°-60°	3443.7	78.5
0°-90°	4389.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4389.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1567	1567	1567	1567	1567	
5°	1562	1558	1549	1562	1560	148
15°	1482	1484	1486	1506	1506	418
25°	1340	1347	1364	1397	1404	617
35°	1149	1164	1201	1247	1258	718
45°	925	955	1012	1068	1082	714
55°	692	729	805	864	877	619
65°	457	505	583	629	642	454
75°	228	283	346	340	326	243
85°	41	59	33	26	22	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1566.8	1566.8	1566.8	1566.8	1566.8
2.5°	1569.0	1564.6	1558.1	1569.0	1566.8
5°	1562.4	1558.1	1549.4	1562.4	1560.3
7.5°	1549.4	1545.0	1540.7	1553.7	1551.6
10°	1532.0	1529.8	1527.6	1542.9	1540.7
12.5°	1510.2	1510.2	1508.0	1525.5	1525.5
15°	1481.9	1484.1	1486.3	1505.9	1505.9
17.5°	1455.8	1453.6	1460.2	1481.9	1484.1
20°	1418.8	1423.2	1431.9	1458.0	1460.2
22.5°	1381.8	1386.2	1401.4	1427.5	1434.1
25°	1340.5	1347.0	1364.4	1397.1	1403.6
27.5°	1297.0	1305.7	1329.6	1364.4	1371.0
30°	1249.1	1262.1	1288.3	1327.4	1334.0
32.5°	1201.2	1214.3	1246.9	1286.1	1294.8
35°	1149.0	1164.2	1201.2	1246.9	1257.8
37.5°	1094.6	1114.2	1157.7	1203.4	1216.4
40°	1040.2	1061.9	1109.8	1157.7	1172.9
42.5°	985.8	1007.5	1059.8	1114.2	1129.4
45°	924.8	955.3	1011.9	1068.5	1081.5
47.5°	866.1	898.7	961.8	1018.4	1035.8
50°	809.5	842.2	909.6	968.4	985.8
52.5°	750.8	785.6	857.4	918.3	933.6
55°	692.0	729.0	805.2	863.9	877.0
57.5°	633.2	672.4	750.8	807.3	822.6
60°	574.5	615.8	692.0	748.6	759.5
62.5°	515.7	559.3	637.6	687.7	698.5
65°	457.0	504.9	583.2	628.9	642.0
67.5°	400.4	448.3	524.4	568.0	578.8
70°	348.2	391.7	467.9	500.5	504.9
72.5°	282.9	337.3	411.3	428.7	417.8
75°	228.5	282.9	346.0	339.5	326.4
77.5°	174.1	228.5	269.8	248.1	230.7
80°	124.0	178.4	187.1	154.5	145.8
82.5°	80.5	124.0	104.5	80.5	65.3
85°	41.3	58.8	32.6	26.1	21.8
87.5°	13.1	8.7	4.4	4.4	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)