

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: P308019

Luminaire Tested: **14FCZ2-44-UNV-L82765-S-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: P308019
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-4500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH 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: 4266.0 lumens
Efficiency: N/A
Efficacy: 109.4 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

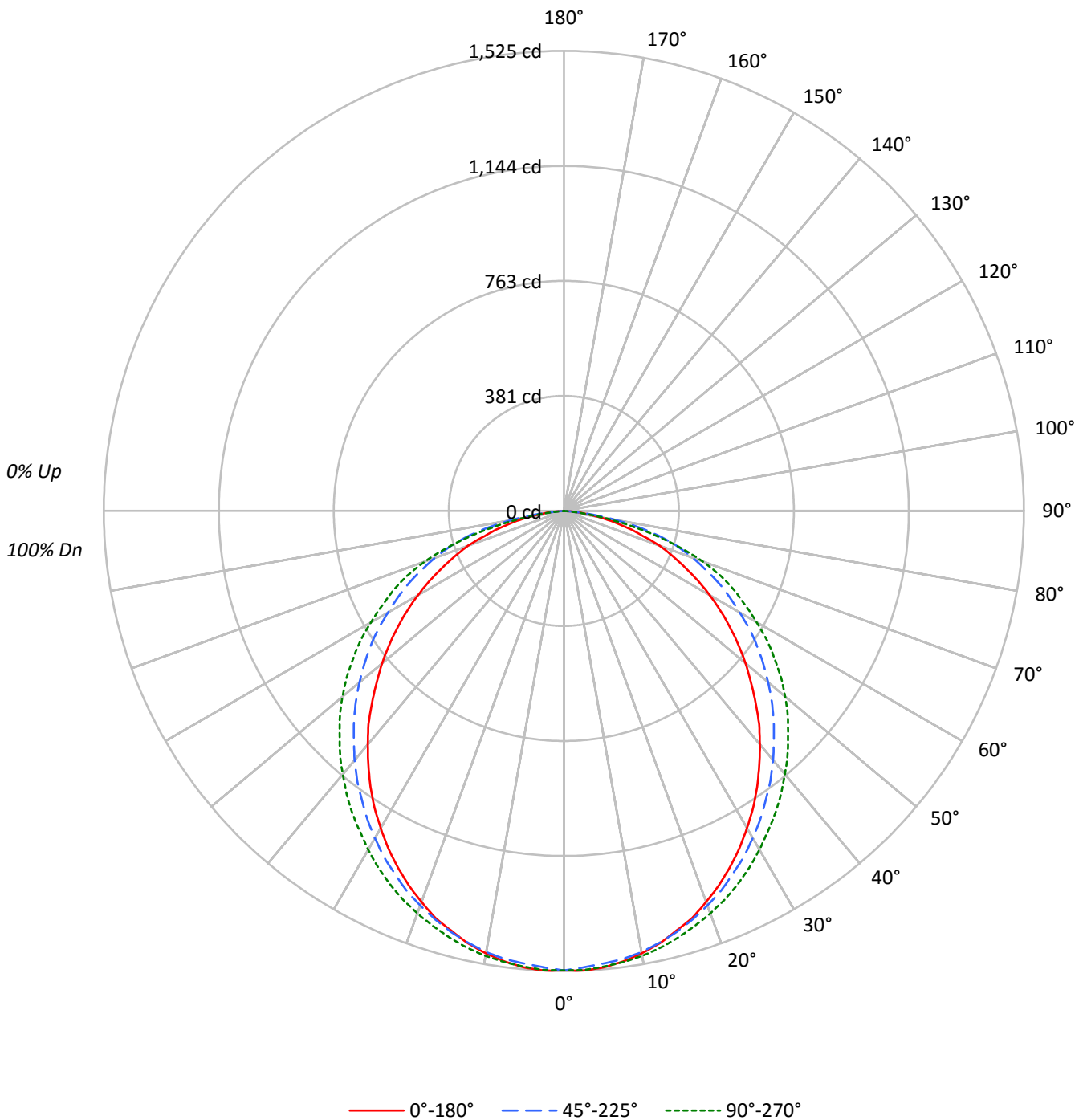
Input Watts (W): 39
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4098	4098	4098
5°	4102	4068	4096
10°	4069	4057	4092
15°	4013	4025	4078
20°	3949	3986	4064
25°	3869	3938	4051
30°	3773	3891	4029
35°	3669	3835	4016
40°	3551	3789	4005
45°	3421	3743	4000
50°	3294	3701	4011
55°	3156	3672	3999
60°	3005	3620	3973
65°	2828	3610	3973
70°	2662	3578	3861
75°	2309	3497	3299
80°	1869	2819	2196
85°	1241	979	655



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.8	3.4
10°-20°	409.2	9.6
20°-30°	613.8	14.4
30°-40°	732.2	17.2
40°-50°	757.0	17.7
50°-60°	691.1	16.2
60°-70°	543.9	12.7
70°-80°	316.6	7.4
80°-90°	58.3	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°	1166.8	27.4
0°-40°	1899.1	44.5
0°-60°	3347.2	78.5
0°-90°	4266.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4266.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1523	1523	1523	1523	1523	
5°	1519	1514	1506	1519	1516	144
15°	1440	1442	1445	1464	1464	406
25°	1303	1309	1326	1358	1364	600
35°	1117	1132	1168	1212	1222	698
45°	899	928	984	1038	1051	694
55°	673	709	783	840	852	601
65°	444	491	567	611	624	441
75°	222	275	336	330	317	236
85°	40	57	32	25	21	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1522.9	1522.9	1522.9	1522.9	1522.9
2.5°	1525.0	1520.8	1514.4	1525.0	1522.9
5°	1518.7	1514.4	1506.0	1518.7	1516.5
7.5°	1506.0	1501.7	1497.5	1510.2	1508.1
10°	1489.0	1486.9	1484.8	1499.6	1497.5
12.5°	1467.9	1467.9	1465.8	1482.7	1482.7
15°	1440.4	1442.5	1444.6	1463.7	1463.7
17.5°	1415.0	1412.9	1419.3	1440.4	1442.5
20°	1379.1	1383.3	1391.8	1417.1	1419.3
22.5°	1343.1	1347.3	1362.1	1387.5	1393.9
25°	1302.9	1309.3	1326.2	1357.9	1364.3
27.5°	1260.6	1269.1	1292.3	1326.2	1332.5
30°	1214.1	1226.8	1252.2	1290.2	1296.6
32.5°	1167.5	1180.2	1212.0	1250.0	1258.5
35°	1116.8	1131.6	1167.5	1212.0	1222.5
37.5°	1063.9	1082.9	1125.2	1169.7	1182.4
40°	1011.0	1032.2	1078.7	1125.2	1140.1
42.5°	958.2	979.3	1030.1	1082.9	1097.8
45°	898.9	928.5	983.5	1038.5	1051.2
47.5°	841.8	873.5	934.9	989.9	1006.8
50°	786.8	818.6	884.1	941.2	958.2
52.5°	729.7	763.6	833.4	892.6	907.4
55°	672.6	708.6	782.6	839.7	852.4
57.5°	615.5	653.6	729.7	784.7	799.5
60°	558.4	598.6	672.6	727.6	738.2
62.5°	501.3	543.6	619.7	668.4	679.0
65°	444.2	490.7	566.9	611.3	624.0
67.5°	389.2	435.7	509.7	552.0	562.6
70°	338.4	380.7	454.8	486.5	490.7
72.5°	275.0	327.8	399.8	416.7	406.1
75°	222.1	275.0	336.3	330.0	317.3
77.5°	169.2	222.1	262.3	241.1	224.2
80°	120.6	173.4	181.9	150.2	141.7
82.5°	78.3	120.6	101.5	78.3	63.5
85°	40.2	57.1	31.7	25.4	21.2
87.5°	12.7	8.5	4.2	4.2	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)