

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: P308017

Luminaire Tested: **14FCZ2-44-UNV-L82765-S-CA08-W2A-U-3500K**

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: P308017
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-3500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 3500K 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: 4101.0 lumens
Efficiency: N/A
Efficacy: 106.5 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

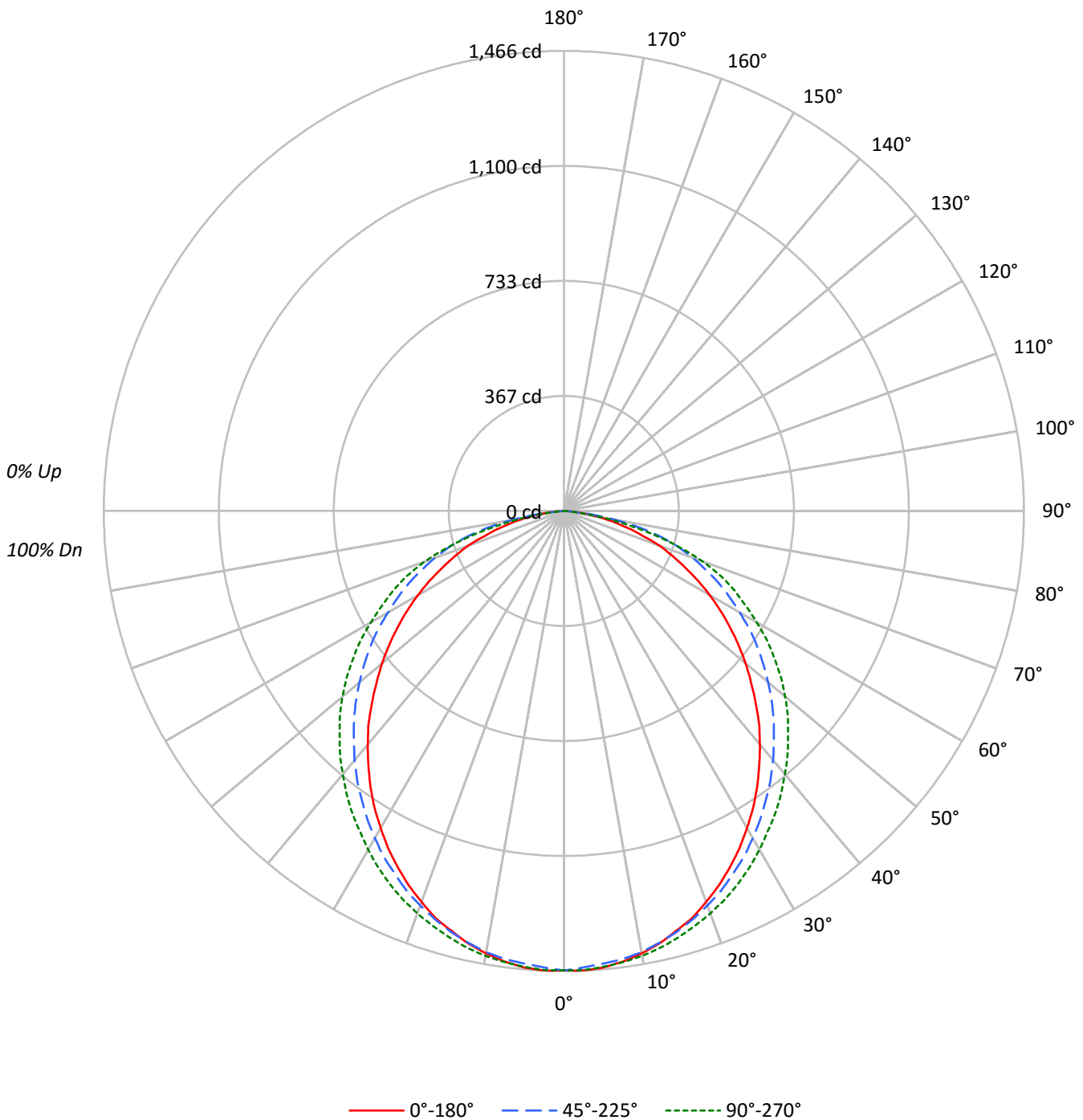
Input Watts (W): 38.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3940	3940	3940
5°	3944	3911	3938
10°	3912	3900	3934
15°	3858	3869	3920
20°	3796	3831	3907
25°	3719	3785	3894
30°	3627	3740	3873
35°	3527	3687	3861
40°	3414	3643	3850
45°	3289	3598	3846
50°	3167	3558	3856
55°	3034	3529	3844
60°	2889	3480	3819
65°	2719	3470	3819
70°	2559	3440	3711
75°	2220	3361	3171
80°	1796	2710	2111
85°	1192	942	627



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.2	3.4
10°-20°	393.4	9.6
20°-30°	590.1	14.4
30°-40°	703.9	17.2
40°-50°	727.7	17.7
50°-60°	664.4	16.2
60°-70°	522.8	12.7
70°-80°	304.4	7.4
80°-90°	56.1	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°	1121.7	27.4
0°-40°	1825.6	44.5
0°-60°	3217.7	78.5
0°-90°	4101.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4101.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1464	1464	1464	1464	1464	
5°	1460	1456	1448	1460	1458	138
15°	1385	1387	1389	1407	1407	391
25°	1252	1259	1275	1305	1312	577
35°	1074	1088	1122	1165	1175	671
45°	864	893	946	998	1011	667
55°	647	681	752	807	819	578
65°	427	472	545	588	600	424
75°	214	264	323	317	305	227
85°	39	55	30	24	20	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1464.0	1464.0	1464.0	1464.0	1464.0
2.5°	1466.0	1462.0	1455.9	1466.0	1464.0
5°	1459.9	1455.9	1447.7	1459.9	1457.9
7.5°	1447.7	1443.7	1439.6	1451.8	1449.8
10°	1431.5	1429.4	1427.4	1441.6	1439.6
12.5°	1411.1	1411.1	1409.1	1425.4	1425.4
15°	1384.7	1386.7	1388.8	1407.1	1407.1
17.5°	1360.3	1358.3	1364.4	1384.7	1386.7
20°	1325.7	1329.8	1337.9	1362.3	1364.4
22.5°	1291.2	1295.2	1309.5	1333.9	1340.0
25°	1252.5	1258.6	1274.9	1305.4	1311.5
27.5°	1211.9	1220.0	1242.4	1274.9	1281.0
30°	1167.1	1179.3	1203.7	1240.3	1246.4
32.5°	1122.4	1134.6	1165.1	1201.7	1209.8
35°	1073.6	1087.8	1122.4	1165.1	1175.3
37.5°	1022.8	1041.1	1081.7	1124.4	1136.6
40°	971.9	992.3	1037.0	1081.7	1096.0
42.5°	921.1	941.4	990.2	1041.1	1055.3
45°	864.2	892.6	945.5	998.4	1010.6
47.5°	809.3	839.8	898.7	951.6	967.9
50°	756.4	786.9	849.9	904.8	921.1
52.5°	701.5	734.0	801.1	858.1	872.3
55°	646.6	681.2	752.3	807.2	819.4
57.5°	591.7	628.3	701.5	754.4	768.6
60°	536.8	575.4	646.6	699.5	709.6
62.5°	481.9	522.6	595.8	642.5	652.7
65°	427.0	471.7	544.9	587.6	599.8
67.5°	374.1	418.9	490.0	530.7	540.9
70°	325.3	366.0	437.2	467.7	471.7
72.5°	264.3	315.2	384.3	400.6	390.4
75°	213.5	264.3	323.3	317.2	305.0
77.5°	162.7	213.5	252.1	231.8	215.5
80°	115.9	166.7	174.9	144.4	136.2
82.5°	75.2	115.9	97.6	75.2	61.0
85°	38.6	54.9	30.5	24.4	20.3
87.5°	12.2	8.1	4.1	4.1	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)