

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: P312418

Luminaire Tested: **14FCZ2-44-UNV-L83050-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: P312418
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-L83050-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: 4451.0 lumens
Efficiency: N/A
Efficacy: 110.7 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

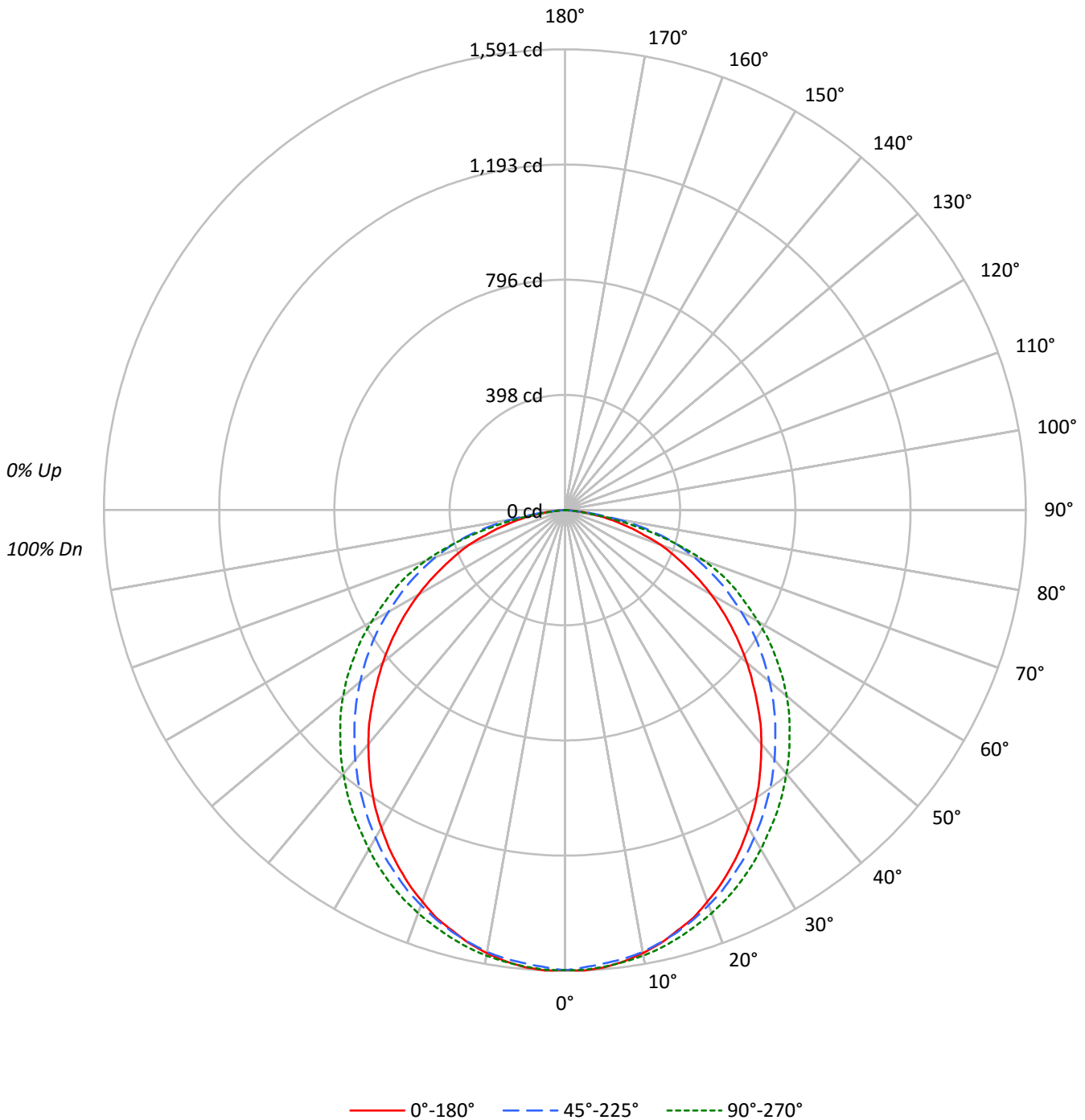
Input Watts (W): 40.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P312418

CATALOG NUMBER: 14FCZ2-44-UNV-L83050-S-CA08-W2A-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P312418

CATALOG NUMBER: 14FCZ2-44-UNV-L83050-S-CA08-W2A-U-4500K

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°	4276	4276	4276
5°	4280	4244	4274
10°	4245	4233	4270
15°	4187	4199	4254
20°	4121	4158	4241
25°	4036	4108	4226
30°	3936	4060	4204
35°	3828	4002	4190
40°	3706	3954	4179
45°	3569	3905	4174
50°	3437	3862	4185
55°	3293	3831	4173
60°	3136	3777	4145
65°	2951	3766	4145
70°	2778	3733	4028
75°	2409	3648	3441
80°	1949	2941	2292
85°	1294	1022	682



TEST NUMBER: P312418

CATALOG NUMBER: 14FCZ2-44-UNV-L83050-S-CA08-W2A-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.0	3.4
10°-20°	427.0	9.6
20°-30°	640.4	14.4
30°-40°	764.0	17.2
40°-50°	789.8	17.7
50°-60°	721.1	16.2
60°-70°	567.5	12.7
70°-80°	330.3	7.4
80°-90°	60.9	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°	1217.4	27.4
0°-40°	1981.4	44.5
0°-60°	3492.3	78.5
0°-90°	4451.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4451.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1589	1589	1589	1589	1589	
5°	1584	1580	1571	1584	1582	150
15°	1503	1505	1507	1527	1527	424
25°	1359	1366	1384	1417	1423	626
35°	1165	1181	1218	1264	1276	728
45°	938	969	1026	1084	1097	724
55°	702	739	816	876	889	628
65°	463	512	591	638	651	460
75°	232	287	351	344	331	246
85°	42	60	33	26	22	54
90°	0	0	0	0	0	



TEST NUMBER: P312418

CATALOG NUMBER: 14FCZ2-44-UNV-L83050-S-CA08-W2A-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1588.9	1588.9	1588.9	1588.9	1588.9
2.5°	1591.1	1586.7	1580.1	1591.1	1588.9
5°	1584.5	1580.1	1571.3	1584.5	1582.3
7.5°	1571.3	1566.9	1562.5	1575.7	1573.5
10°	1553.6	1551.4	1549.2	1564.7	1562.5
12.5°	1531.6	1531.6	1529.3	1547.0	1547.0
15°	1502.9	1505.1	1507.3	1527.1	1527.1
17.5°	1476.4	1474.2	1480.8	1502.9	1505.1
20°	1438.9	1443.3	1452.1	1478.6	1480.8
22.5°	1401.4	1405.8	1421.2	1447.7	1454.3
25°	1359.4	1366.0	1383.7	1416.8	1423.4
27.5°	1315.3	1324.1	1348.4	1383.7	1390.3
30°	1266.7	1280.0	1306.5	1346.2	1352.8
32.5°	1218.2	1231.4	1264.5	1304.2	1313.1
35°	1165.2	1180.7	1218.2	1264.5	1275.6
37.5°	1110.0	1129.9	1174.0	1220.4	1233.6
40°	1054.9	1076.9	1125.5	1174.0	1189.5
42.5°	999.7	1021.8	1074.7	1129.9	1145.4
45°	937.9	968.8	1026.2	1083.6	1096.8
47.5°	878.3	911.4	975.4	1032.8	1050.5
50°	820.9	854.1	922.5	982.0	999.7
52.5°	761.4	796.7	869.5	931.3	946.7
55°	701.8	739.3	816.5	876.1	889.4
57.5°	642.2	681.9	761.4	818.7	834.2
60°	582.6	624.5	701.8	759.2	770.2
62.5°	523.0	567.2	646.6	697.4	708.4
65°	463.4	512.0	591.4	637.8	651.0
67.5°	406.1	454.6	531.9	576.0	587.0
70°	353.1	397.2	474.5	507.6	512.0
72.5°	286.9	342.1	417.1	434.7	423.7
75°	231.7	286.9	350.9	344.3	331.0
77.5°	176.5	231.7	273.6	251.6	233.9
80°	125.8	181.0	189.8	156.7	147.9
82.5°	81.7	125.8	105.9	81.7	66.2
85°	41.9	59.6	33.1	26.5	22.1
87.5°	13.2	8.8	4.4	4.4	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)