

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: P312277

Luminaire Tested: **14FCZ2-44-UNV-L83050-CP125-W2A-U-4000K**

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: P312277
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
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-CP125-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (168) 4000K 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: 4263.0 lumens
Efficiency: N/A
Efficacy: 108.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

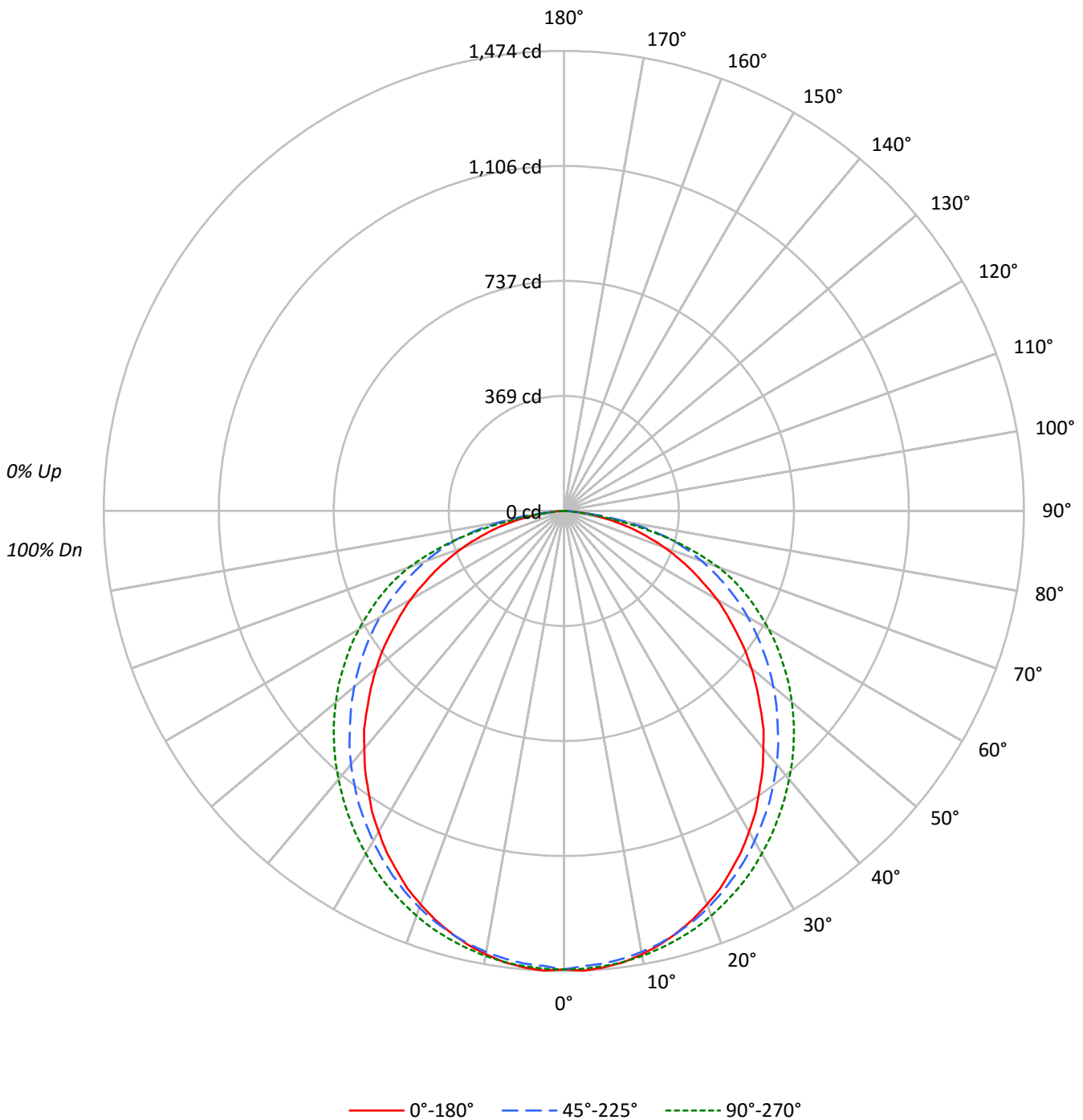
Input Watts (W): 39.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3952	3952	3952
5°	3965	3931	3954
10°	3940	3919	3956
15°	3898	3901	3954
20°	3841	3873	3952
25°	3768	3836	3948
30°	3686	3796	3940
35°	3588	3763	3938
40°	3493	3726	3943
45°	3386	3686	3965
50°	3287	3669	3991
55°	3162	3657	4027
60°	3049	3663	4082
65°	2893	3674	4146
70°	2715	3702	4143
75°	2461	3736	3746
80°	2018	3226	2667
85°	1497	1525	618



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.0	3.3
10°-20°	397.0	9.3
20°-30°	598.0	14.0
30°-40°	717.6	16.8
40°-50°	748.0	17.5
50°-60°	692.4	16.2
60°-70°	559.5	13.1
70°-80°	341.1	8.0
80°-90°	70.4	1.7
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°	1134.0	26.6
0°-40°	1851.6	43.4
0°-60°	3292.0	77.2
0°-90°	4263.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4263.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1469	1469	1469	1469	1469	
5°	1468	1464	1455	1466	1464	139
15°	1399	1400	1400	1419	1419	394
25°	1269	1277	1292	1324	1330	585
35°	1092	1109	1145	1187	1199	684
45°	890	916	969	1023	1042	688
55°	674	709	780	840	858	604
65°	454	499	577	635	651	449
75°	237	289	359	365	360	249
85°	48	72	49	28	20	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1468.6	1468.6	1468.6	1468.6	1468.6
2.5°	1474.3	1469.6	1459.1	1469.6	1467.7
5°	1467.7	1463.9	1455.3	1465.8	1463.9
7.5°	1458.2	1454.4	1446.8	1459.1	1457.2
10°	1442.0	1440.1	1434.4	1448.7	1447.7
12.5°	1423.0	1422.0	1419.2	1435.3	1434.4
15°	1399.2	1400.2	1400.2	1419.2	1419.2
17.5°	1372.6	1374.5	1378.3	1399.2	1402.1
20°	1341.2	1345.0	1352.6	1376.4	1380.2
22.5°	1308.9	1311.8	1323.2	1351.7	1355.5
25°	1269.0	1276.6	1291.8	1324.1	1329.8
27.5°	1231.0	1237.6	1258.5	1291.8	1301.3
30°	1186.3	1196.8	1221.5	1257.6	1268.0
32.5°	1143.5	1154.9	1183.4	1225.3	1234.8
35°	1092.2	1109.3	1145.4	1187.3	1198.7
37.5°	1045.6	1061.8	1102.7	1148.3	1161.6
40°	994.3	1014.2	1060.8	1109.3	1122.6
42.5°	946.8	965.8	1016.2	1065.6	1083.6
45°	889.7	916.3	968.6	1022.8	1041.8
47.5°	837.4	864.1	923.9	981.9	999.0
50°	785.2	813.7	876.4	936.3	953.4
52.5°	731.0	761.4	828.9	888.8	908.7
55°	673.9	709.1	779.5	840.3	858.4
57.5°	619.8	655.9	731.0	792.8	810.8
60°	566.5	603.6	680.6	739.5	758.5
62.5°	507.6	551.3	631.2	689.2	703.4
65°	454.4	499.0	577.0	635.0	651.1
67.5°	398.3	446.8	524.7	577.9	593.2
70°	345.1	395.4	470.5	520.0	526.6
72.5°	288.0	339.4	415.4	446.8	446.8
75°	236.7	289.0	359.3	365.0	360.3
77.5°	180.6	238.6	284.2	272.8	261.4
80°	130.2	187.3	208.2	187.3	172.1
82.5°	87.5	135.9	125.5	99.8	88.4
85°	48.5	72.2	49.4	27.6	20.0
87.5°	18.1	16.2	4.8	4.8	4.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)