

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: P312251

Luminaire Tested: **14FCZ2-39-UNV-L83050-CP125-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: P312251
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: 14FCZ2-39-UNV-L83050-CP125-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB 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

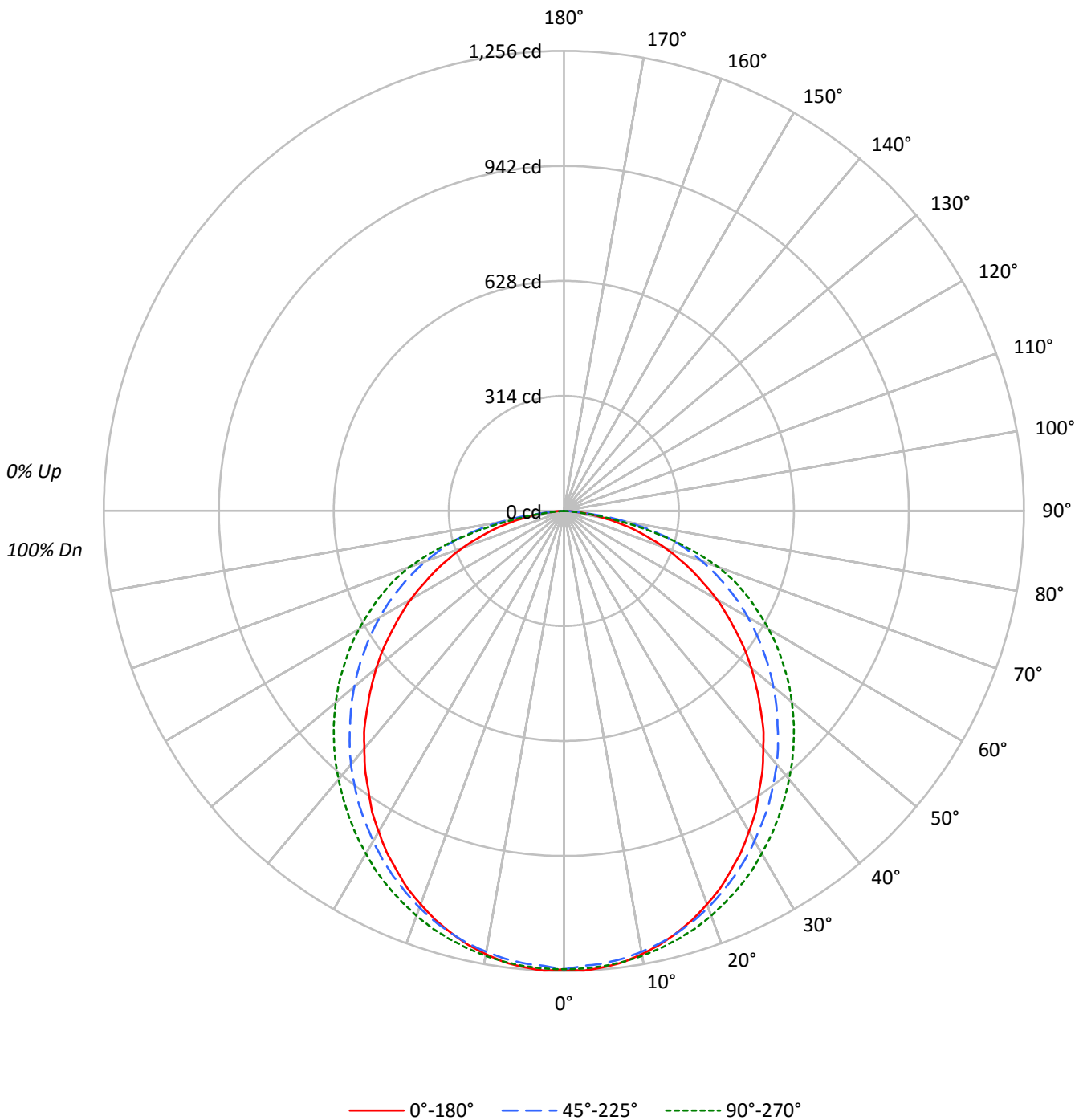
Lumens per Lamp: N/A
Luminaire Lumens: 3632.0 lumens
Efficiency: N/A
Efficacy: 109.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	3367	3367	3367
5°	3378	3349	3369
10°	3357	3339	3370
15°	3321	3323	3368
20°	3272	3300	3367
25°	3210	3268	3364
30°	3141	3234	3357
35°	3057	3206	3355
40°	2976	3175	3360
45°	2885	3140	3378
50°	2800	3126	3401
55°	2694	3116	3431
60°	2598	3121	3478
65°	2465	3130	3533
70°	2313	3154	3530
75°	2097	3183	3191
80°	1720	2749	2272
85°	1275	1300	525



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.4	3.3
10°-20°	338.2	9.3
20°-30°	509.5	14.0
30°-40°	611.4	16.8
40°-50°	637.2	17.5
50°-60°	589.9	16.2
60°-70°	476.7	13.1
70°-80°	290.6	8.0
80°-90°	60.0	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°	966.1	26.6
0°-40°	1577.5	43.4
0°-60°	2804.7	77.2
0°-90°	3632.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3632.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1251	1251	1251	1251	1251	
5°	1250	1247	1240	1249	1247	119
15°	1192	1193	1193	1209	1209	336
25°	1081	1088	1101	1128	1133	498
35°	930	945	976	1012	1021	583
45°	758	781	825	871	888	586
55°	574	604	664	716	731	514
65°	387	425	492	541	555	383
75°	202	246	306	311	307	212
85°	41	62	42	24	17	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1251.2	1251.2	1251.2	1251.2	1251.2
2.5°	1256.1	1252.0	1243.1	1252.0	1250.4
5°	1250.4	1247.2	1239.9	1248.8	1247.2
7.5°	1242.3	1239.1	1232.6	1243.1	1241.5
10°	1228.6	1226.9	1222.1	1234.2	1233.4
12.5°	1212.4	1211.6	1209.1	1222.9	1222.1
15°	1192.1	1192.9	1192.9	1209.1	1209.1
17.5°	1169.4	1171.1	1174.3	1192.1	1194.5
20°	1142.7	1146.0	1152.4	1172.7	1175.9
22.5°	1115.2	1117.6	1127.3	1151.6	1154.9
25°	1081.2	1087.6	1100.6	1128.1	1133.0
27.5°	1048.8	1054.4	1072.3	1100.6	1108.7
30°	1010.7	1019.6	1040.7	1071.4	1080.4
32.5°	974.3	984.0	1008.3	1043.9	1052.0
35°	930.5	945.1	975.9	1011.5	1021.2
37.5°	890.8	904.6	939.4	978.3	989.7
40°	847.1	864.1	903.8	945.1	956.4
42.5°	806.6	822.8	865.7	907.9	923.2
45°	758.0	780.7	825.2	871.4	887.6
47.5°	713.5	736.2	787.2	836.6	851.2
50°	668.9	693.2	746.7	797.7	812.3
52.5°	622.8	648.7	706.2	757.2	774.2
55°	574.2	604.2	664.1	715.9	731.3
57.5°	528.0	558.8	622.8	675.4	690.8
60°	482.7	514.3	579.9	630.1	646.3
62.5°	432.5	469.7	537.7	587.1	599.3
65°	387.1	425.2	491.6	541.0	554.8
67.5°	339.3	380.6	447.0	492.4	505.4
70°	294.0	336.9	400.9	443.0	448.7
72.5°	245.4	289.1	353.9	380.6	380.6
75°	201.7	246.2	306.1	311.0	306.9
77.5°	153.9	203.3	242.1	232.4	222.7
80°	111.0	159.5	177.4	159.5	146.6
82.5°	74.5	115.8	106.9	85.0	75.3
85°	41.3	61.5	42.1	23.5	17.0
87.5°	15.4	13.8	4.0	4.0	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)