

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: P312398

Luminaire Tested: **14FCZ2-39-UNV-L83050-S-CA125-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: P312398
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: 14FCZ2-39-UNV-L83050-S-CA125-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS,0.125" 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: 3968.0 lumens
Efficiency: N/A
Efficacy: 113.7 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

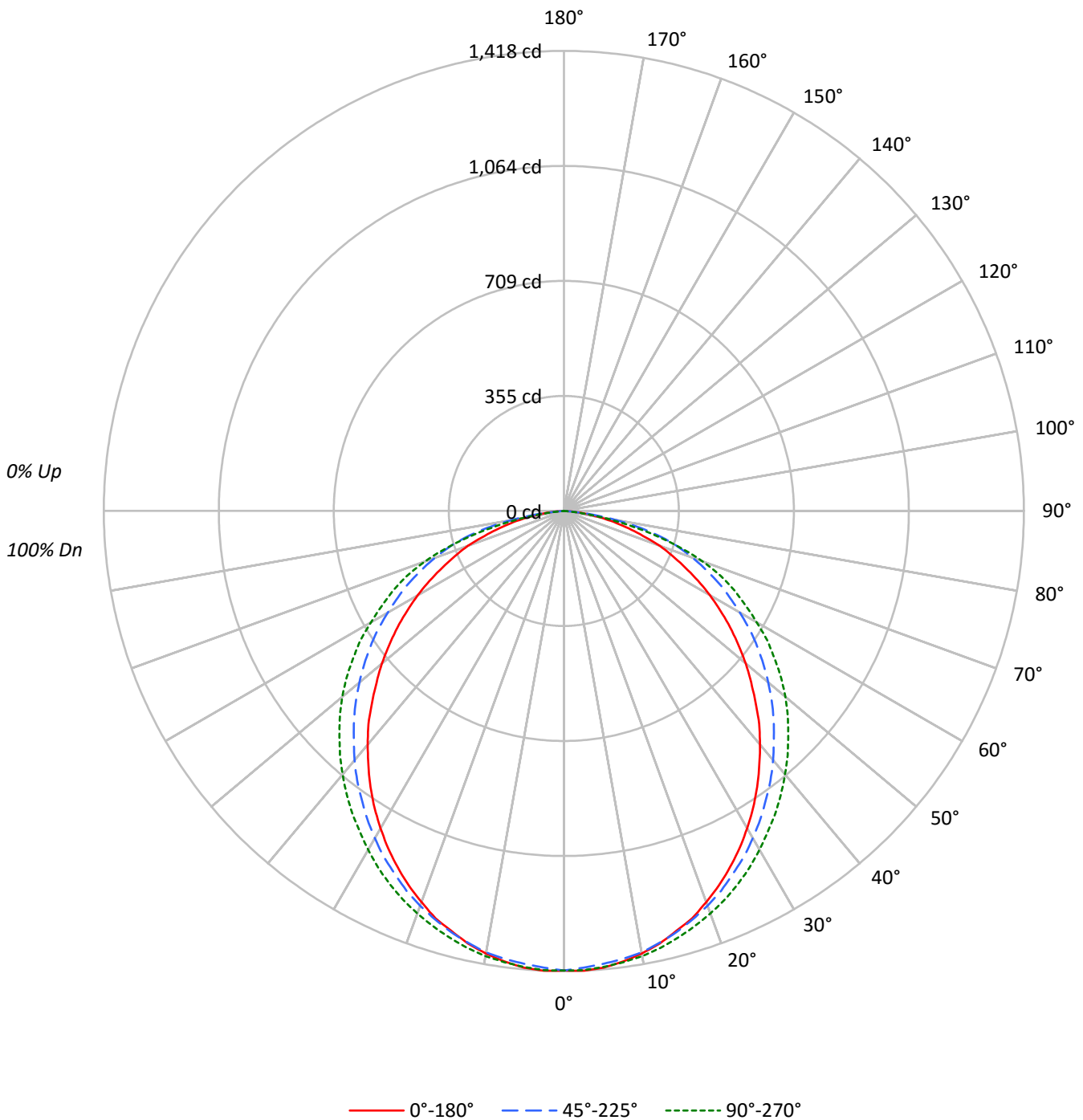
Input Watts (W): 34.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3812	3812	3812
5°	3816	3784	3810
10°	3785	3774	3806
15°	3733	3743	3793
20°	3673	3707	3780
25°	3598	3662	3768
30°	3509	3619	3747
35°	3413	3568	3735
40°	3303	3525	3725
45°	3182	3481	3721
50°	3064	3443	3731
55°	2935	3415	3720
60°	2795	3367	3695
65°	2630	3358	3696
70°	2477	3328	3591
75°	2148	3252	3068
80°	1737	2622	2042
85°	1155	911	608



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.8	3.4
10°-20°	380.6	9.6
20°-30°	570.9	14.4
30°-40°	681.1	17.2
40°-50°	704.1	17.7
50°-60°	642.8	16.2
60°-70°	505.9	12.7
70°-80°	294.5	7.4
80°-90°	54.2	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°	1085.3	27.4
0°-40°	1766.4	44.5
0°-60°	3113.4	78.5
0°-90°	3968.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3968.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1416	1416	1416	1416	1416	
5°	1413	1409	1401	1413	1411	134
15°	1340	1342	1344	1361	1361	378
25°	1212	1218	1234	1263	1269	558
35°	1039	1052	1086	1127	1137	649
45°	836	864	915	966	978	646
55°	626	659	728	781	793	559
65°	413	456	527	569	580	410
75°	207	256	313	307	295	220
85°	37	53	30	24	20	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1416.5	1416.5	1416.5	1416.5	1416.5
2.5°	1418.5	1414.5	1408.6	1418.5	1416.5
5°	1412.6	1408.6	1400.8	1412.6	1410.6
7.5°	1400.8	1396.8	1392.9	1404.7	1402.7
10°	1385.0	1383.1	1381.1	1394.9	1392.9
12.5°	1365.4	1365.4	1363.4	1379.1	1379.1
15°	1339.8	1341.7	1343.7	1361.4	1361.4
17.5°	1316.2	1314.2	1320.1	1339.8	1341.7
20°	1282.7	1286.7	1294.5	1318.1	1320.1
22.5°	1249.3	1253.2	1267.0	1290.6	1296.5
25°	1211.9	1217.8	1233.5	1263.1	1269.0
27.5°	1172.6	1180.4	1202.1	1233.5	1239.4
30°	1129.3	1141.1	1164.7	1200.1	1206.0
32.5°	1086.0	1097.8	1127.3	1162.7	1170.6
35°	1038.8	1052.5	1086.0	1127.3	1137.1
37.5°	989.6	1007.3	1046.6	1088.0	1099.8
40°	940.4	960.1	1003.4	1046.6	1060.4
42.5°	891.2	910.9	958.1	1007.3	1021.1
45°	836.1	863.7	914.8	966.0	977.8
47.5°	783.0	812.5	869.6	920.7	936.5
50°	731.9	761.4	822.4	875.5	891.2
52.5°	678.7	710.2	775.1	830.2	844.0
55°	625.6	659.1	727.9	781.0	792.9
57.5°	572.5	607.9	678.7	729.9	743.7
60°	519.4	556.8	625.6	676.8	686.6
62.5°	466.3	505.6	576.4	621.7	631.5
65°	413.1	456.4	527.3	568.6	580.4
67.5°	362.0	405.3	474.1	513.5	523.3
70°	314.8	354.1	423.0	452.5	456.4
72.5°	255.8	304.9	371.8	387.6	377.7
75°	206.6	255.8	312.8	306.9	295.1
77.5°	157.4	206.6	244.0	224.3	208.5
80°	112.1	161.3	169.2	139.7	131.8
82.5°	72.8	112.1	94.4	72.8	59.0
85°	37.4	53.1	29.5	23.6	19.7
87.5°	11.8	7.9	3.9	3.9	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)