

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: P312401

Luminaire Tested: **14FCZ2-39-UNV-L83050-S-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: P312401
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-CP125-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH 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: 3670.0 lumens
Efficiency: N/A
Efficacy: 110.2 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

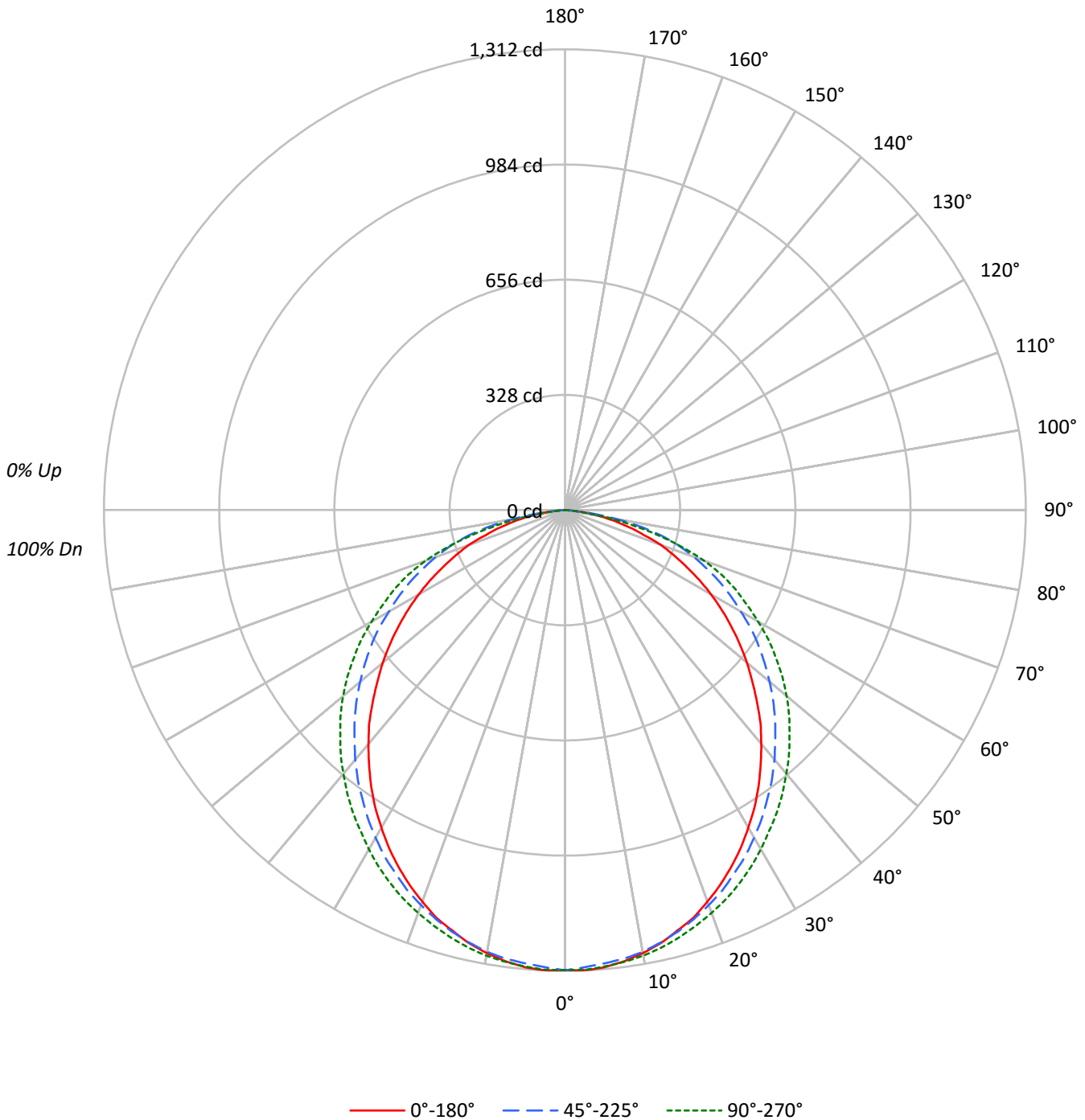
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3525	3525	3525
5°	3529	3500	3524
10°	3500	3490	3520
15°	3452	3462	3508
20°	3397	3429	3497
25°	3328	3388	3485
30°	3246	3347	3466
35°	3156	3300	3455
40°	3055	3260	3445
45°	2943	3220	3442
50°	2834	3184	3451
55°	2715	3159	3440
60°	2585	3114	3418
65°	2433	3105	3418
70°	2290	3078	3322
75°	1987	3008	2837
80°	1607	2425	1889
85°	1068	843	562



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.7	3.4
10°-20°	352.0	9.6
20°-30°	528.1	14.4
30°-40°	629.9	17.2
40°-50°	651.2	17.7
50°-60°	594.6	16.2
60°-70°	467.9	12.7
70°-80°	272.4	7.4
80°-90°	50.2	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°	1003.8	27.4
0°-40°	1633.8	44.5
0°-60°	2879.6	78.5
0°-90°	3670.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3670.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1310	1310	1310	1310	1310	
5°	1306	1303	1296	1306	1305	124
15°	1239	1241	1243	1259	1259	350
25°	1121	1126	1141	1168	1174	516
35°	961	974	1004	1043	1052	601
45°	773	799	846	893	904	597
55°	579	610	673	722	733	517
65°	382	422	488	526	537	379
75°	191	237	289	284	273	203
85°	35	49	27	22	18	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1310.1	1310.1	1310.1	1310.1	1310.1
2.5°	1311.9	1308.3	1302.9	1311.9	1310.1
5°	1306.5	1302.9	1295.6	1306.5	1304.7
7.5°	1295.6	1291.9	1288.3	1299.2	1297.4
10°	1281.0	1279.2	1277.4	1290.1	1288.3
12.5°	1262.8	1262.8	1261.0	1275.6	1275.6
15°	1239.2	1241.0	1242.8	1259.2	1259.2
17.5°	1217.3	1215.5	1221.0	1239.2	1241.0
20°	1186.4	1190.0	1197.3	1219.1	1221.0
22.5°	1155.5	1159.1	1171.8	1193.7	1199.1
25°	1120.9	1126.3	1140.9	1168.2	1173.7
27.5°	1084.5	1091.8	1111.8	1140.9	1146.4
30°	1044.5	1055.4	1077.2	1110.0	1115.4
32.5°	1004.4	1015.4	1042.6	1075.4	1082.7
35°	960.8	973.5	1004.4	1042.6	1051.7
37.5°	915.3	931.6	968.0	1006.3	1017.2
40°	869.8	888.0	928.0	968.0	980.8
42.5°	824.3	842.5	886.2	931.6	944.4
45°	773.3	798.8	846.1	893.4	904.4
47.5°	724.2	751.5	804.3	851.6	866.1
50°	676.9	704.2	760.6	809.7	824.3
52.5°	627.8	656.9	716.9	767.9	780.6
55°	578.6	609.6	673.3	722.4	733.3
57.5°	529.5	562.3	627.8	675.1	687.8
60°	480.4	515.0	578.6	626.0	635.0
62.5°	431.3	467.6	533.1	575.0	584.1
65°	382.1	422.2	487.7	525.9	536.8
67.5°	334.8	374.8	438.5	474.9	484.0
70°	291.1	327.5	391.2	418.5	422.2
72.5°	236.6	282.0	343.9	358.5	349.4
75°	191.1	236.6	289.3	283.9	272.9
77.5°	145.6	191.1	225.6	207.4	192.9
80°	103.7	149.2	156.5	129.2	121.9
82.5°	67.3	103.7	87.3	67.3	54.6
85°	34.6	49.1	27.3	21.8	18.2
87.5°	10.9	7.3	3.6	3.6	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)