

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: P312425

Luminaire Tested: **14FCZ2-44-UNV-L83050-S-CP125-W2A-U-3000K**

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: P312425
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-CP125-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB SHEET
Light Source: (168) 3000K 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: 3877.0 lumens
Efficiency: N/A
Efficacy: 101.5 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

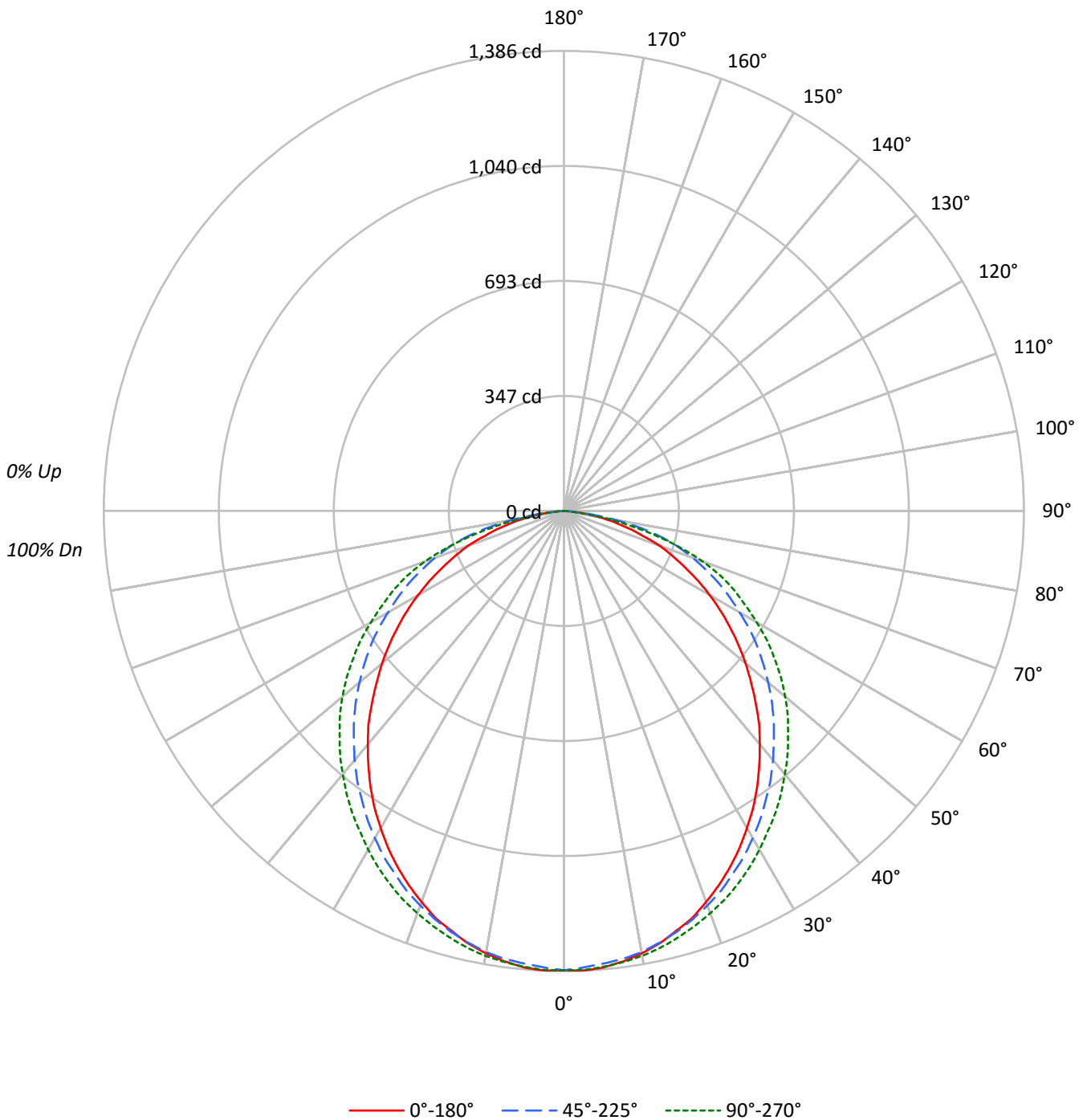
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3724	3724	3724
5°	3728	3697	3723
10°	3698	3687	3719
15°	3647	3658	3706
20°	3589	3622	3694
25°	3516	3579	3681
30°	3429	3536	3661
35°	3334	3486	3650
40°	3228	3444	3640
45°	3109	3401	3636
50°	2994	3364	3646
55°	2868	3337	3635
60°	2731	3290	3611
65°	2571	3280	3611
70°	2420	3252	3509
75°	2098	3177	2997
80°	1698	2562	1996
85°	1127	889	593



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.7	3.4
10°-20°	371.9	9.6
20°-30°	557.9	14.4
30°-40°	665.5	17.2
40°-50°	688.0	17.7
50°-60°	628.1	16.2
60°-70°	494.3	12.7
70°-80°	287.7	7.4
80°-90°	53.0	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°	1060.4	27.4
0°-40°	1725.9	44.5
0°-60°	3042.0	78.5
0°-90°	3877.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3877.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1384	1384	1384	1384	1384	
5°	1380	1376	1369	1380	1378	131
15°	1309	1311	1313	1330	1330	369
25°	1184	1190	1205	1234	1240	545
35°	1015	1028	1061	1102	1111	634
45°	817	844	894	944	955	631
55°	611	644	711	763	775	547
65°	404	446	515	556	567	401
75°	202	250	306	300	288	215
85°	36	52	29	23	19	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1384.0	1384.0	1384.0	1384.0	1384.0
2.5°	1385.9	1382.1	1376.3	1385.9	1384.0
5°	1380.2	1376.3	1368.6	1380.2	1378.3
7.5°	1368.6	1364.8	1361.0	1372.5	1370.6
10°	1353.3	1351.3	1349.4	1362.9	1361.0
12.5°	1334.0	1334.0	1332.1	1347.5	1347.5
15°	1309.1	1311.0	1312.9	1330.2	1330.2
17.5°	1286.0	1284.1	1289.8	1309.1	1311.0
20°	1253.3	1257.2	1264.8	1287.9	1289.8
22.5°	1220.6	1224.5	1237.9	1261.0	1266.8
25°	1184.1	1189.9	1205.3	1234.1	1239.9
27.5°	1145.7	1153.4	1174.5	1205.3	1211.0
30°	1103.4	1114.9	1138.0	1172.6	1178.3
32.5°	1061.1	1072.6	1101.5	1136.1	1143.7
35°	1015.0	1028.4	1061.1	1101.5	1111.1
37.5°	966.9	984.2	1022.6	1063.0	1074.5
40°	918.8	938.1	980.4	1022.6	1036.1
42.5°	870.8	890.0	936.1	984.2	997.7
45°	817.0	843.9	893.8	943.8	955.4
47.5°	765.1	793.9	849.6	899.6	915.0
50°	715.1	743.9	803.5	855.4	870.8
52.5°	663.2	693.9	757.4	811.2	824.6
55°	611.3	644.0	711.2	763.1	774.7
57.5°	559.4	594.0	663.2	713.2	726.6
60°	507.5	544.0	611.3	661.3	670.9
62.5°	455.6	494.0	563.2	607.4	617.0
65°	403.7	446.0	515.2	555.5	567.1
67.5°	353.7	396.0	463.3	501.7	511.3
70°	307.6	346.0	413.3	442.1	446.0
72.5°	249.9	297.9	363.3	378.7	369.1
75°	201.8	249.9	305.6	299.9	288.3
77.5°	153.8	201.8	238.4	219.1	203.8
80°	109.6	157.6	165.3	136.5	128.8
82.5°	71.1	109.6	92.3	71.1	57.7
85°	36.5	51.9	28.8	23.1	19.2
87.5°	11.5	7.7	3.8	3.8	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)