

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: P312402

Luminaire Tested: **14FCZ2-39-UNV-L83050-S-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: P312402
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-4000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH 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: 3854.0 lumens
Efficiency: N/A
Efficacy: 113.0 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

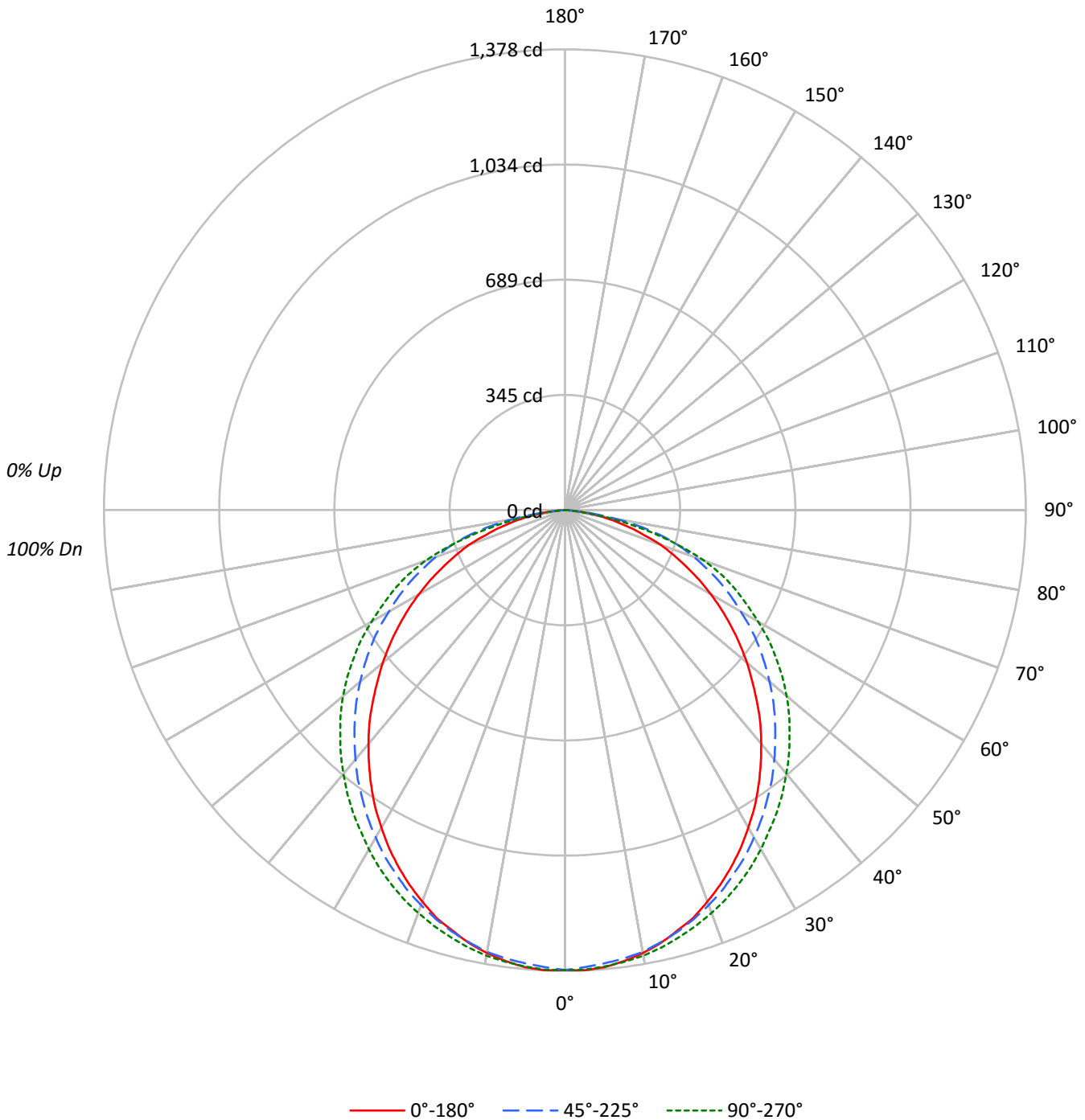
Input Watts (W): 34.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3702	3702	3702
5°	3706	3675	3701
10°	3676	3665	3697
15°	3625	3636	3684
20°	3568	3601	3672
25°	3495	3557	3659
30°	3408	3515	3640
35°	3314	3465	3628
40°	3209	3423	3618
45°	3091	3381	3614
50°	2976	3344	3624
55°	2851	3317	3613
60°	2715	3271	3589
65°	2555	3261	3589
70°	2405	3232	3488
75°	2086	3159	2980
80°	1688	2546	1984
85°	1121	886	590



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.9	3.4
10°-20°	369.7	9.6
20°-30°	554.5	14.4
30°-40°	661.5	17.2
40°-50°	683.9	17.7
50°-60°	624.4	16.2
60°-70°	491.4	12.7
70°-80°	286.0	7.4
80°-90°	52.7	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°	1054.1	27.4
0°-40°	1715.7	44.5
0°-60°	3023.9	78.5
0°-90°	3854.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3854.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1376	1376	1376	1376	1376	
5°	1372	1368	1360	1372	1370	130
15°	1301	1303	1305	1322	1322	367
25°	1177	1183	1198	1227	1232	542
35°	1009	1022	1055	1095	1104	631
45°	812	839	888	938	950	627
55°	608	640	707	759	770	543
65°	401	443	512	552	564	398
75°	201	248	304	298	287	213
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°	1375.8	1375.8	1375.8	1375.8	1375.8
2.5°	1377.7	1373.9	1368.2	1377.7	1375.8
5°	1372.0	1368.2	1360.5	1372.0	1370.1
7.5°	1360.5	1356.7	1352.9	1364.3	1362.4
10°	1345.2	1343.3	1341.4	1354.8	1352.9
12.5°	1326.1	1326.1	1324.2	1339.5	1339.5
15°	1301.3	1303.2	1305.1	1322.3	1322.3
17.5°	1278.4	1276.4	1282.2	1301.3	1303.2
20°	1245.9	1249.7	1257.3	1280.3	1282.2
22.5°	1213.4	1217.2	1230.6	1253.5	1259.3
25°	1177.1	1182.8	1198.1	1226.8	1232.5
27.5°	1138.9	1146.5	1167.5	1198.1	1203.8
30°	1096.8	1108.3	1131.2	1165.6	1171.4
32.5°	1054.8	1066.3	1094.9	1129.3	1137.0
35°	1008.9	1022.3	1054.8	1094.9	1104.5
37.5°	961.2	978.4	1016.6	1056.7	1068.2
40°	913.4	932.5	974.5	1016.6	1029.9
42.5°	865.6	884.7	930.6	978.4	991.7
45°	812.1	838.9	888.5	938.2	949.7
47.5°	760.5	789.2	844.6	894.3	909.6
50°	710.8	739.5	798.7	850.3	865.6
52.5°	659.2	689.8	752.9	806.4	819.8
55°	607.7	640.1	707.0	758.6	770.1
57.5°	556.1	590.5	659.2	708.9	722.3
60°	504.5	540.8	607.7	657.3	666.9
62.5°	452.9	491.1	559.9	603.8	613.4
65°	401.3	443.3	512.1	552.2	563.7
67.5°	351.6	393.6	460.5	498.7	508.3
70°	305.7	344.0	410.8	439.5	443.3
72.5°	248.4	296.2	361.2	376.4	366.9
75°	200.6	248.4	303.8	298.1	286.6
77.5°	152.9	200.6	236.9	217.8	202.6
80°	108.9	156.7	164.3	135.7	128.0
82.5°	70.7	108.9	91.7	70.7	57.3
85°	36.3	51.6	28.7	22.9	19.1
87.5°	11.5	7.6	3.8	3.8	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)