

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: P310860

Luminaire Tested: **24FCZ2-50HE-UNV-L82765-CA125-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: P310860
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-50HE-UNV-L82765-CA125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 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: 4323.0 lumens
Efficiency: N/A
Efficacy: 113.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

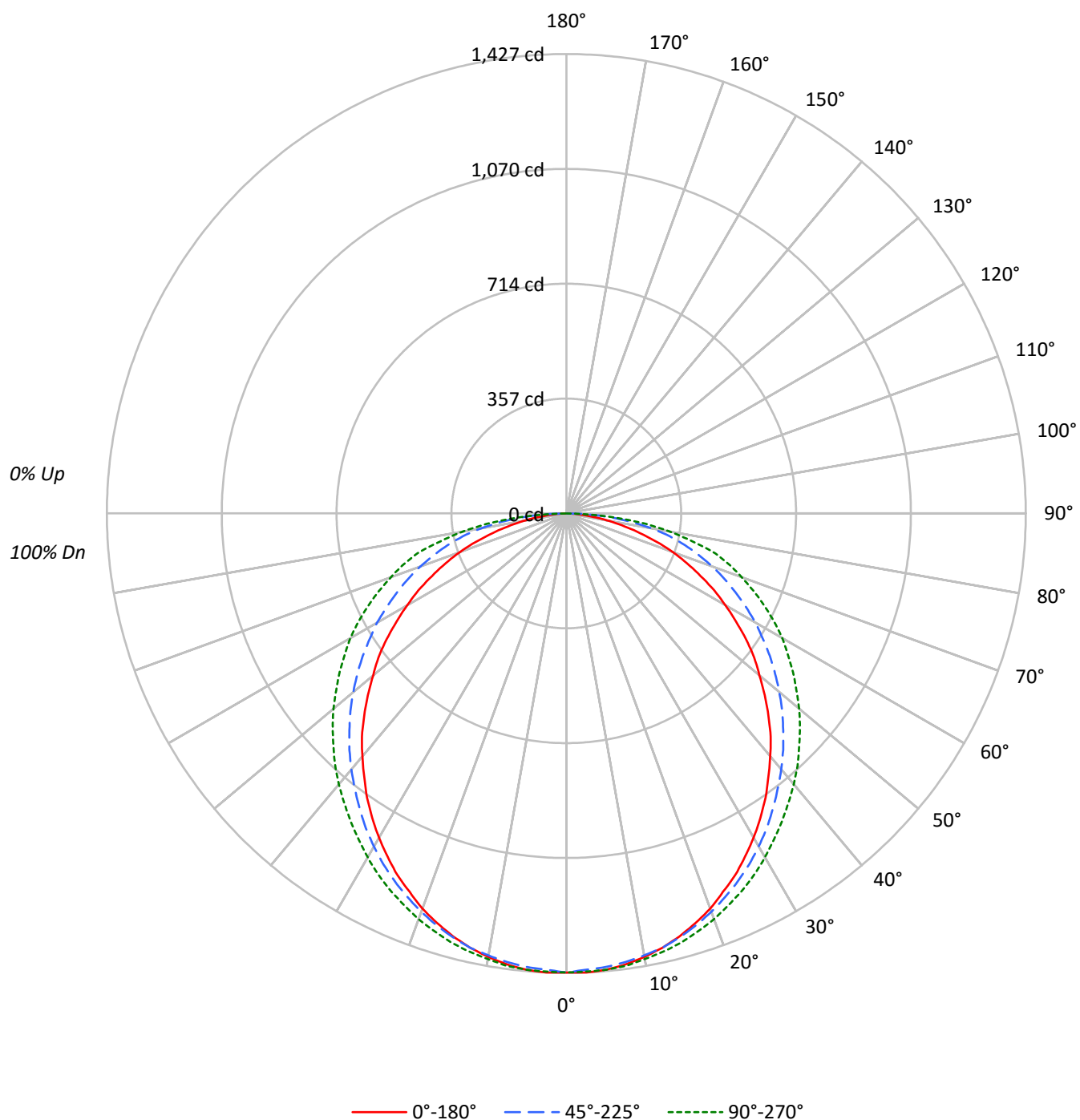
Input Watts (W): 38.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	100	96	92	96	92	89		92	89	87		82
2	98	89	81	75	95	87	80	74	83	78	73		80	75	71		67
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		56
4	81	68	59	52	79	67	58	52	64	57	51		62	56	50		47
5	74	61	52	45	72	60	51	44	58	50	44		56	49	43		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	64	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	37	31	57	45	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1918	1918	1918
5°	1922	1910	1922
10°	1911	1905	1920
15°	1894	1898	1922
20°	1871	1885	1920
25°	1842	1872	1919
30°	1807	1856	1916
35°	1772	1838	1918
40°	1731	1824	1930
45°	1689	1812	1946
50°	1639	1807	1976
55°	1598	1810	2015
60°	1536	1826	2084
65°	1466	1845	2160
70°	1388	1902	2280
75°	1238	1983	2491
80°	1056	2101	2545
85°	753	2081	2436



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.9	3.1
10°-20°	385.8	8.9
20°-30°	582.7	13.5
30°-40°	702.3	16.2
40°-50°	737.3	17.1
50°-60°	689.8	16.0
60°-70°	569.6	13.2
70°-80°	388.2	9.0
80°-90°	132.4	3.1
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°	1103.4	25.5
0°-40°	1805.7	41.8
0°-60°	3232.8	74.8
0°-90°	4323.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4323.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1426	1426	1426	1426	1426	
5°	1423	1421	1414	1423	1423	135
15°	1360	1361	1363	1377	1380	383
25°	1241	1246	1261	1285	1292	571
35°	1079	1090	1119	1156	1168	674
45°	888	906	952	1004	1023	685
55°	681	708	772	835	859	608
65°	460	499	580	653	678	457
75°	238	293	382	453	479	254
85°	49	96	135	152	158	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1425.7	1425.7	1425.7	1425.7	1425.7
2.5°	1427.1	1425.7	1418.5	1425.7	1424.3
5°	1422.8	1421.4	1414.2	1422.8	1422.8
7.5°	1412.8	1412.8	1405.6	1415.6	1417.1
10°	1398.4	1398.4	1394.1	1405.6	1405.6
12.5°	1381.2	1381.2	1381.2	1392.7	1394.1
15°	1359.7	1361.1	1362.6	1376.9	1379.8
17.5°	1333.9	1336.8	1341.1	1358.3	1361.1
20°	1306.6	1309.5	1316.7	1336.8	1341.1
22.5°	1272.2	1279.4	1289.4	1312.4	1316.7
25°	1240.7	1246.4	1260.7	1285.1	1292.3
27.5°	1201.9	1210.5	1229.2	1255.0	1265.0
30°	1163.2	1171.8	1194.8	1224.9	1233.5
32.5°	1121.6	1134.5	1158.9	1190.5	1200.5
35°	1078.6	1090.1	1118.7	1156.0	1167.5
37.5°	1031.3	1047.0	1078.6	1118.7	1133.1
40°	985.4	1002.6	1038.4	1081.5	1098.7
42.5°	939.5	956.7	996.8	1045.6	1062.8
45°	887.8	906.5	952.4	1004.0	1022.7
47.5°	836.2	859.1	909.3	963.8	983.9
50°	783.1	808.9	863.4	920.8	943.8
52.5°	735.8	760.2	817.5	879.2	900.7
55°	681.3	708.5	771.6	834.8	859.1
57.5°	625.4	655.5	722.9	791.7	816.1
60°	570.8	603.8	678.4	747.3	774.5
62.5°	517.8	550.8	628.2	699.9	727.2
65°	460.4	499.1	579.5	652.6	678.4
67.5°	405.9	447.5	532.1	603.8	629.7
70°	352.8	393.0	483.4	553.6	579.5
72.5°	295.5	341.4	431.7	504.9	532.1
75°	238.1	292.6	381.5	453.2	479.1
77.5°	185.0	241.0	329.9	388.7	401.6
80°	136.3	193.6	271.1	312.7	328.5
82.5°	87.5	144.9	206.5	236.7	249.6
85°	48.8	96.1	134.8	152.0	157.8
87.5°	20.1	41.6	54.5	61.7	61.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)