

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: P310933

Luminaire Tested: **24FCZ2-50-UNV-L82765-CP250-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: P310933
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: 24FCZ2-50-UNV-L82765-CP250-W2A-U-3500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.250" 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: 4145.0 lumens
Efficiency: N/A
Efficacy: 96.6 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

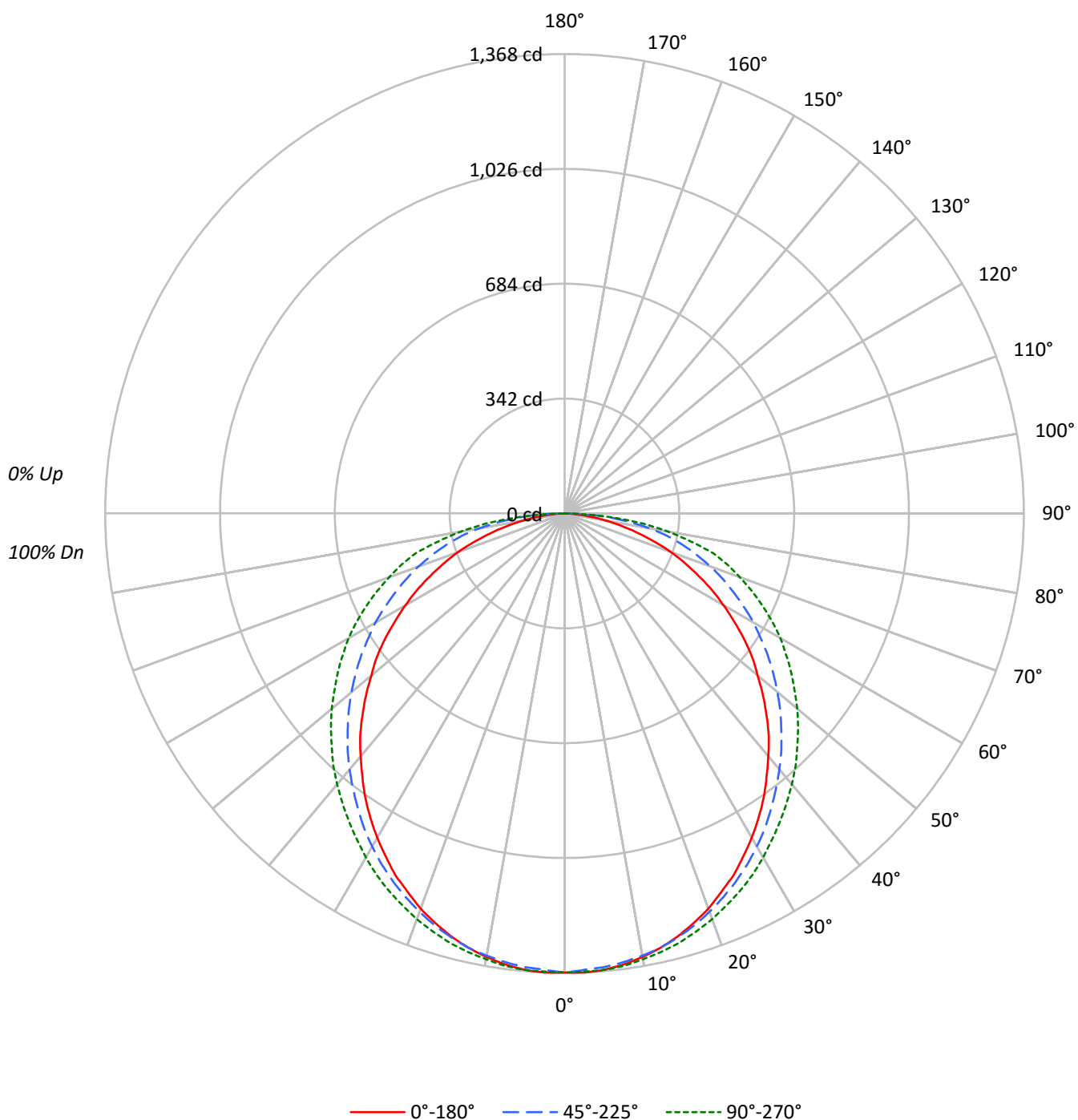
Input Watts (W): 42.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1839	1839	1839
5°	1843	1831	1843
10°	1832	1826	1841
15°	1816	1820	1843
20°	1794	1808	1841
25°	1766	1795	1840
30°	1733	1780	1837
35°	1699	1762	1839
40°	1659	1749	1850
45°	1620	1738	1866
50°	1572	1733	1894
55°	1532	1736	1932
60°	1473	1750	1998
65°	1406	1769	2071
70°	1331	1823	2186
75°	1187	1902	2388
80°	1012	2014	2440
85°	722	1996	2336



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.4	3.1
10°-20°	369.9	8.9
20°-30°	558.7	13.5
30°-40°	673.4	16.2
40°-50°	706.9	17.1
50°-60°	661.4	16.0
60°-70°	546.2	13.2
70°-80°	372.2	9.0
80°-90°	126.9	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°	1058.0	25.5
0°-40°	1731.4	41.8
0°-60°	3099.7	74.8
0°-90°	4145.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4145.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1367	1367	1367	1367	1367	
5°	1364	1363	1356	1364	1364	129
15°	1304	1305	1306	1320	1323	368
25°	1190	1195	1209	1232	1239	547
35°	1034	1045	1073	1108	1119	646
45°	851	869	913	963	980	657
55°	653	679	740	800	824	583
65°	442	479	556	626	650	438
75°	228	280	366	435	459	243
85°	47	92	129	146	151	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1367.0	1367.0	1367.0	1367.0	1367.0
2.5°	1368.4	1367.0	1360.1	1367.0	1365.6
5°	1364.2	1362.9	1356.0	1364.2	1364.2
7.5°	1354.6	1354.6	1347.7	1357.4	1358.7
10°	1340.9	1340.9	1336.7	1347.7	1347.7
12.5°	1324.4	1324.4	1324.4	1335.4	1336.7
15°	1303.7	1305.1	1306.5	1320.2	1323.0
17.5°	1279.0	1281.7	1285.8	1302.3	1305.1
20°	1252.8	1255.6	1262.5	1281.7	1285.8
22.5°	1219.8	1226.7	1236.3	1258.3	1262.5
25°	1189.6	1195.1	1208.8	1232.2	1239.1
27.5°	1152.4	1160.7	1178.6	1203.3	1213.0
30°	1115.3	1123.6	1145.6	1174.5	1182.7
32.5°	1075.4	1087.8	1111.2	1141.4	1151.1
35°	1034.2	1045.2	1072.7	1108.4	1119.4
37.5°	988.8	1003.9	1034.2	1072.7	1086.4
40°	944.8	961.3	995.7	1036.9	1053.4
42.5°	900.8	917.3	955.8	1002.5	1019.1
45°	851.3	869.1	913.2	962.7	980.5
47.5°	801.8	823.8	871.9	924.2	943.4
50°	750.9	775.6	827.9	882.9	904.9
52.5°	705.5	728.9	783.9	843.0	863.6
55°	653.2	679.4	739.9	800.4	823.8
57.5°	599.6	628.5	693.1	759.1	782.5
60°	547.3	579.0	650.5	716.5	742.6
62.5°	496.5	528.1	602.4	671.1	697.2
65°	441.5	478.6	555.6	625.7	650.5
67.5°	389.2	429.1	510.2	579.0	603.7
70°	338.3	376.8	463.5	530.8	555.6
72.5°	283.3	327.3	413.9	484.1	510.2
75°	228.3	280.5	365.8	434.6	459.3
77.5°	177.4	231.0	316.3	372.7	385.1
80°	130.6	185.7	259.9	299.8	314.9
82.5°	83.9	138.9	198.0	226.9	239.3
85°	46.8	92.1	129.3	145.8	151.3
87.5°	19.3	39.9	52.3	59.1	59.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)