

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: P310907

Luminaire Tested: **24FCZ2-50-UNV-L82765-CA125-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: P310907
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-CA125-W2A-U-4000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC 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: 4549.0 lumens
Efficiency: N/A
Efficacy: 105.3 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

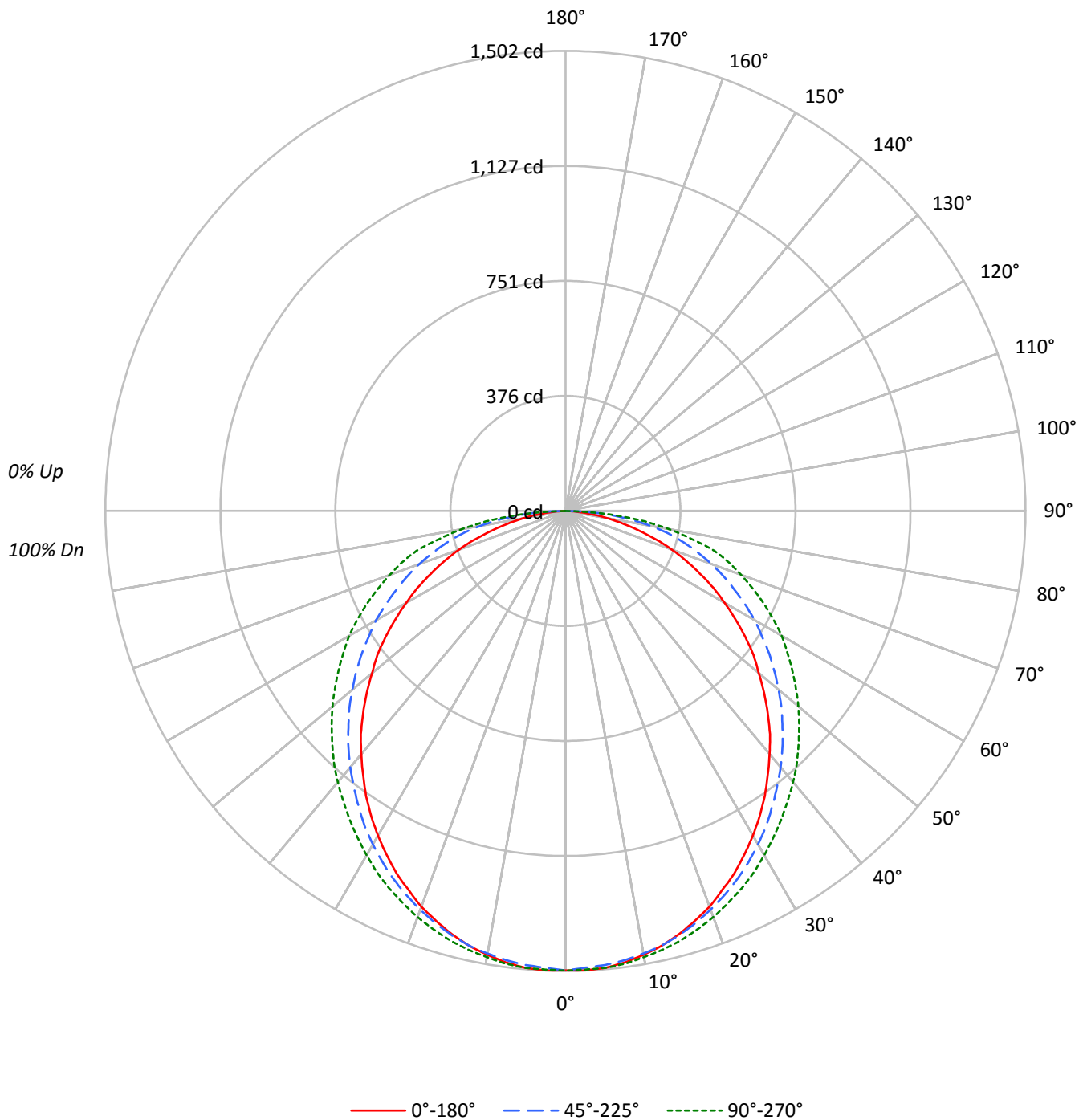
Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	108	103	98	94	105	100	96	92	96	92	89	92	89	87	88	86	84	82		
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67		
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56		
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47		
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41		
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36		
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31		
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28		
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25		
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2019	2019	2019
5°	2022	2010	2022
10°	2010	2004	2021
15°	1993	1997	2022
20°	1969	1984	2021
25°	1938	1970	2019
30°	1902	1953	2017
35°	1864	1934	2018
40°	1821	1919	2031
45°	1778	1907	2048
50°	1725	1902	2079
55°	1682	1905	2121
60°	1616	1921	2193
65°	1543	1941	2273
70°	1461	2001	2399
75°	1302	2087	2621
80°	1111	2211	2678
85°	792	2191	2563



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.0	3.1
10°-20°	406.0	8.9
20°-30°	613.2	13.5
30°-40°	739.0	16.2
40°-50°	775.8	17.1
50°-60°	725.8	16.0
60°-70°	599.4	13.2
70°-80°	408.5	9.0
80°-90°	139.3	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°	1161.1	25.5
0°-40°	1900.1	41.8
0°-60°	3401.8	74.8
0°-90°	4549.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4549.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1500	1500	1500	1500	1500	
5°	1497	1496	1488	1497	1497	142
15°	1431	1432	1434	1449	1452	403
25°	1306	1312	1327	1352	1360	601
35°	1135	1147	1177	1216	1229	709
45°	934	954	1002	1056	1076	721
55°	717	746	812	878	904	640
65°	484	525	610	687	714	481
75°	250	308	402	477	504	267
85°	51	101	142	160	166	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1500.2	1500.2	1500.2	1500.2	1500.2
2.5°	1501.7	1500.2	1492.7	1500.2	1498.7
5°	1497.2	1495.7	1488.1	1497.2	1497.2
7.5°	1486.6	1486.6	1479.1	1489.7	1491.2
10°	1471.5	1471.5	1467.0	1479.1	1479.1
12.5°	1453.4	1453.4	1453.4	1465.5	1467.0
15°	1430.8	1432.3	1433.8	1448.9	1451.9
17.5°	1403.6	1406.6	1411.2	1429.3	1432.3
20°	1375.0	1378.0	1385.5	1406.6	1411.2
22.5°	1338.7	1346.3	1356.8	1381.0	1385.5
25°	1305.5	1311.6	1326.7	1352.3	1359.9
27.5°	1264.8	1273.8	1293.4	1320.6	1331.2
30°	1224.0	1233.1	1257.2	1288.9	1298.0
32.5°	1180.3	1193.8	1219.5	1252.7	1263.3
35°	1135.0	1147.0	1177.2	1216.5	1228.6
37.5°	1085.2	1101.8	1135.0	1177.2	1192.3
40°	1036.9	1055.0	1092.7	1138.0	1156.1
42.5°	988.6	1006.7	1048.9	1100.3	1118.4
45°	934.2	953.9	1002.2	1056.5	1076.1
47.5°	879.9	904.1	956.9	1014.2	1035.4
50°	824.1	851.2	908.6	969.0	993.1
52.5°	774.3	799.9	860.3	925.2	947.8
55°	716.9	745.6	812.0	878.4	904.1
57.5°	658.0	689.7	760.7	833.1	858.8
60°	600.7	635.4	713.9	786.3	815.0
62.5°	544.8	579.6	661.1	736.5	765.2
65°	484.5	525.2	609.7	686.7	713.9
67.5°	427.1	470.9	559.9	635.4	662.6
70°	371.3	413.5	508.6	582.6	609.7
72.5°	310.9	359.2	454.3	531.3	559.9
75°	250.5	307.9	401.5	476.9	504.1
77.5°	194.7	253.6	347.1	409.0	422.6
80°	143.4	203.8	285.3	329.0	345.6
82.5°	92.1	152.4	217.3	249.0	262.6
85°	51.3	101.1	141.9	160.0	166.0
87.5°	21.1	43.8	57.4	64.9	64.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)