

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: P310873

Luminaire Tested: **24FCZ2-50HE-UNV-L82765-CP125-W2A-U-5000K**

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: P310873
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-CP125-W2A-U-5000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (336) 5000K 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: 4623.1 lumens
Efficiency: N/A
Efficacy: 117.6 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

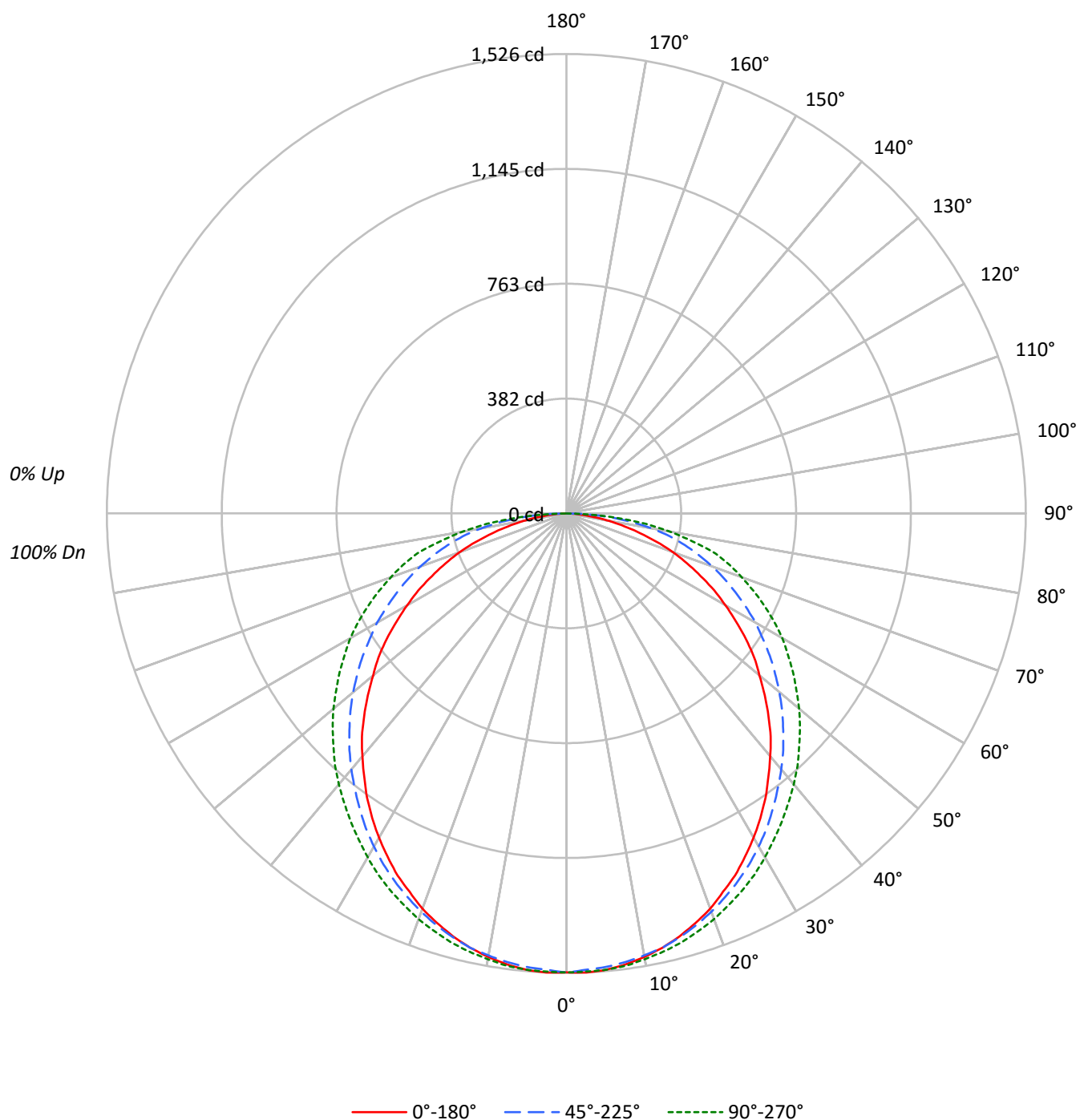
Input Watts (W): 39.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2051	2051	2051
5°	2055	2043	2055
10°	2043	2037	2054
15°	2025	2030	2055
20°	2001	2016	2053
25°	1970	2002	2052
30°	1933	1985	2049
35°	1895	1965	2051
40°	1851	1950	2064
45°	1807	1938	2081
50°	1753	1933	2113
55°	1709	1936	2155
60°	1643	1952	2229
65°	1568	1973	2310
70°	1484	2033	2438
75°	1324	2121	2663
80°	1129	2246	2721
85°	806	2226	2604



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.3	3.1
10°-20°	412.6	8.9
20°-30°	623.2	13.5
30°-40°	751.0	16.2
40°-50°	788.5	17.1
50°-60°	737.6	16.0
60°-70°	609.2	13.2
70°-80°	415.1	9.0
80°-90°	141.6	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°	1180.0	25.5
0°-40°	1931.1	41.8
0°-60°	3457.2	74.8
0°-90°	4623.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4623.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1525	1525	1525	1525	1525	
5°	1522	1520	1512	1522	1522	144
15°	1454	1456	1457	1472	1476	410
25°	1327	1333	1348	1374	1382	610
35°	1153	1166	1196	1236	1248	721
45°	949	969	1018	1074	1094	732
55°	729	758	825	893	919	650
65°	492	534	620	698	726	488
75°	255	313	408	485	512	272
85°	52	103	144	163	169	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1524.6	1524.6	1524.6	1524.6	1524.6
2.5°	1526.2	1524.6	1517.0	1524.6	1523.1
5°	1521.6	1520.0	1512.4	1521.6	1521.6
7.5°	1510.8	1510.8	1503.2	1513.9	1515.4
10°	1495.5	1495.5	1490.9	1503.2	1503.2
12.5°	1477.1	1477.1	1477.1	1489.3	1490.9
15°	1454.1	1455.6	1457.1	1472.5	1475.5
17.5°	1426.5	1429.5	1434.1	1452.5	1455.6
20°	1397.3	1400.4	1408.1	1429.5	1434.1
22.5°	1360.5	1368.2	1378.9	1403.5	1408.1
25°	1326.8	1332.9	1348.2	1374.3	1382.0
27.5°	1285.3	1294.6	1314.5	1342.1	1352.8
30°	1243.9	1253.1	1277.7	1309.9	1319.1
32.5°	1199.5	1213.3	1239.3	1273.1	1283.8
35°	1153.4	1165.7	1196.4	1236.3	1248.5
37.5°	1102.8	1119.7	1153.4	1196.4	1211.7
40°	1053.7	1072.1	1110.5	1156.5	1174.9
42.5°	1004.7	1023.1	1066.0	1118.2	1136.6
45°	949.4	969.4	1018.5	1073.7	1093.6
47.5°	894.2	918.8	972.4	1030.7	1052.2
50°	837.5	865.1	923.4	984.7	1009.3
52.5°	786.9	812.9	874.3	940.2	963.2
55°	728.6	757.7	825.2	892.7	918.8
57.5°	668.7	701.0	773.0	846.7	872.7
60°	610.5	645.7	725.5	799.1	828.3
62.5°	553.7	589.0	671.8	748.5	777.7
65°	492.4	533.8	619.7	697.9	725.5
67.5°	434.1	478.6	569.1	645.7	673.4
70°	377.3	420.3	516.9	592.1	619.7
72.5°	316.0	365.1	461.7	539.9	569.1
75°	254.6	312.9	408.0	484.7	512.3
77.5°	197.9	257.7	352.8	415.7	429.5
80°	145.7	207.1	289.9	334.4	351.2
82.5°	93.6	154.9	220.9	253.1	266.9
85°	52.2	102.8	144.2	162.6	168.7
87.5°	21.5	44.5	58.3	66.0	66.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)