

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: P311142

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-CP125-W2A-U-4500K**

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: P311142
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: 24FCZ2-75HE-UNV-L82765-CP125-W2A-U-4500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (336) 4500K 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: 6840.0 lumens
Efficiency: N/A
Efficacy: 106.9 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

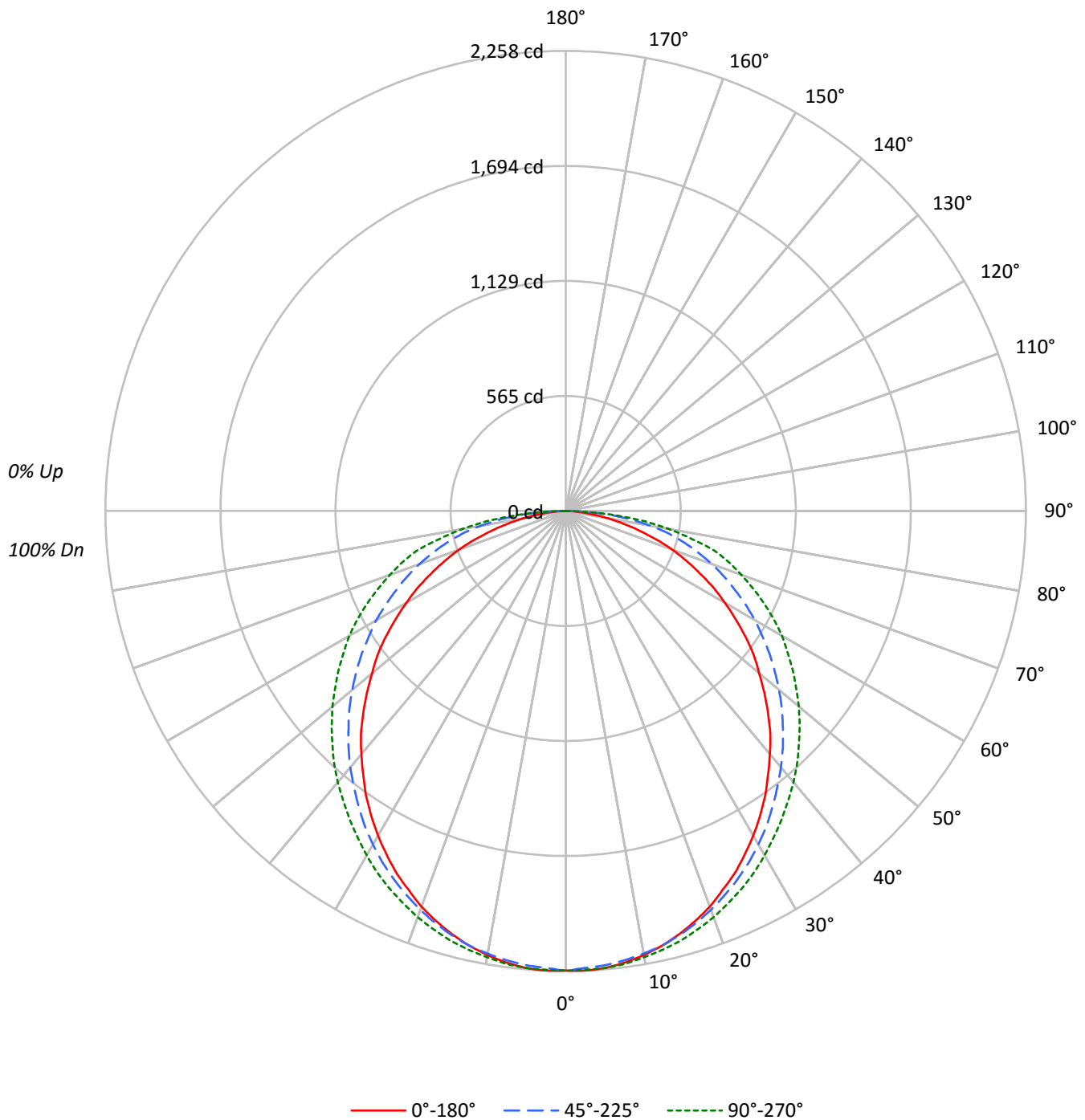
Input Watts (W): 64
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3035	3035	3035
5°	3041	3022	3041
10°	3023	3014	3039
15°	2997	3003	3041
20°	2960	2983	3038
25°	2914	2961	3036
30°	2859	2937	3032
35°	2803	2907	3034
40°	2738	2886	3053
45°	2673	2867	3079
50°	2594	2860	3126
55°	2529	2864	3189
60°	2430	2888	3298
65°	2319	2919	3417
70°	2196	3009	3607
75°	1958	3138	3941
80°	1671	3323	4027
85°	1192	3293	3853



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.5	3.1
10°-20°	610.4	8.9
20°-30°	922.0	13.5
30°-40°	1111.2	16.2
40°-50°	1166.6	17.1
50°-60°	1091.4	16.0
60°-70°	901.3	13.2
70°-80°	614.2	9.0
80°-90°	209.5	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°	1745.9	25.5
0°-40°	2857.1	41.8
0°-60°	5115.1	74.8
0°-90°	6840.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6840.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2256	2256	2256	2256	2256	
5°	2251	2249	2238	2251	2251	214
15°	2151	2154	2156	2179	2183	606
25°	1963	1972	1995	2033	2045	903
35°	1707	1725	1770	1829	1847	1066
45°	1405	1434	1507	1589	1618	1083
55°	1078	1121	1221	1321	1359	962
65°	728	790	917	1033	1073	723
75°	377	463	604	717	758	402
85°	77	152	213	241	250	97
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2255.8	2255.8	2255.8	2255.8	2255.8
2.5°	2258.0	2255.8	2244.4	2255.8	2253.5
5°	2251.2	2249.0	2237.6	2251.2	2251.2
7.5°	2235.3	2235.3	2224.0	2239.9	2242.2
10°	2212.7	2212.7	2205.8	2224.0	2224.0
12.5°	2185.4	2185.4	2185.4	2203.6	2205.8
15°	2151.4	2153.7	2155.9	2178.6	2183.2
17.5°	2110.5	2115.1	2121.9	2149.1	2153.7
20°	2067.4	2072.0	2083.3	2115.1	2121.9
22.5°	2012.9	2024.3	2040.2	2076.5	2083.3
25°	1963.0	1972.1	1994.8	2033.4	2044.7
27.5°	1901.7	1915.4	1944.9	1985.7	2001.6
30°	1840.5	1854.1	1890.4	1938.1	1951.7
32.5°	1774.7	1795.1	1833.7	1883.6	1899.5
35°	1706.6	1724.7	1770.1	1829.1	1847.3
37.5°	1631.7	1656.7	1706.6	1770.1	1792.8
40°	1559.1	1586.3	1643.0	1711.1	1738.4
42.5°	1486.4	1513.7	1577.2	1654.4	1681.6
45°	1404.8	1434.3	1506.9	1588.6	1618.1
47.5°	1323.1	1359.4	1438.8	1525.0	1556.8
50°	1239.1	1279.9	1366.2	1456.9	1493.3
52.5°	1164.2	1202.8	1293.6	1391.1	1425.2
55°	1078.0	1121.1	1220.9	1320.8	1359.4
57.5°	989.5	1037.1	1143.8	1252.7	1291.3
60°	903.2	955.4	1073.4	1182.4	1225.5
62.5°	819.2	871.4	994.0	1107.5	1150.6
65°	728.5	789.7	916.8	1032.6	1073.4
67.5°	642.2	708.0	841.9	955.4	996.3
70°	558.3	621.8	764.8	876.0	916.8
72.5°	467.5	540.1	683.1	798.8	841.9
75°	376.7	463.0	603.7	717.1	758.0
77.5°	292.8	381.3	522.0	615.0	635.4
80°	215.6	306.4	428.9	494.7	519.7
82.5°	138.4	229.2	326.8	374.4	394.9
85°	77.2	152.0	213.3	240.6	249.6
87.5°	31.8	65.8	86.2	97.6	97.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)