

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: P311145

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-CP125-W2A-U-5700K**

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: P311145
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-5700K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (336) 5700K 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: 7020.0 lumens
Efficiency: N/A
Efficacy: 108.7 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

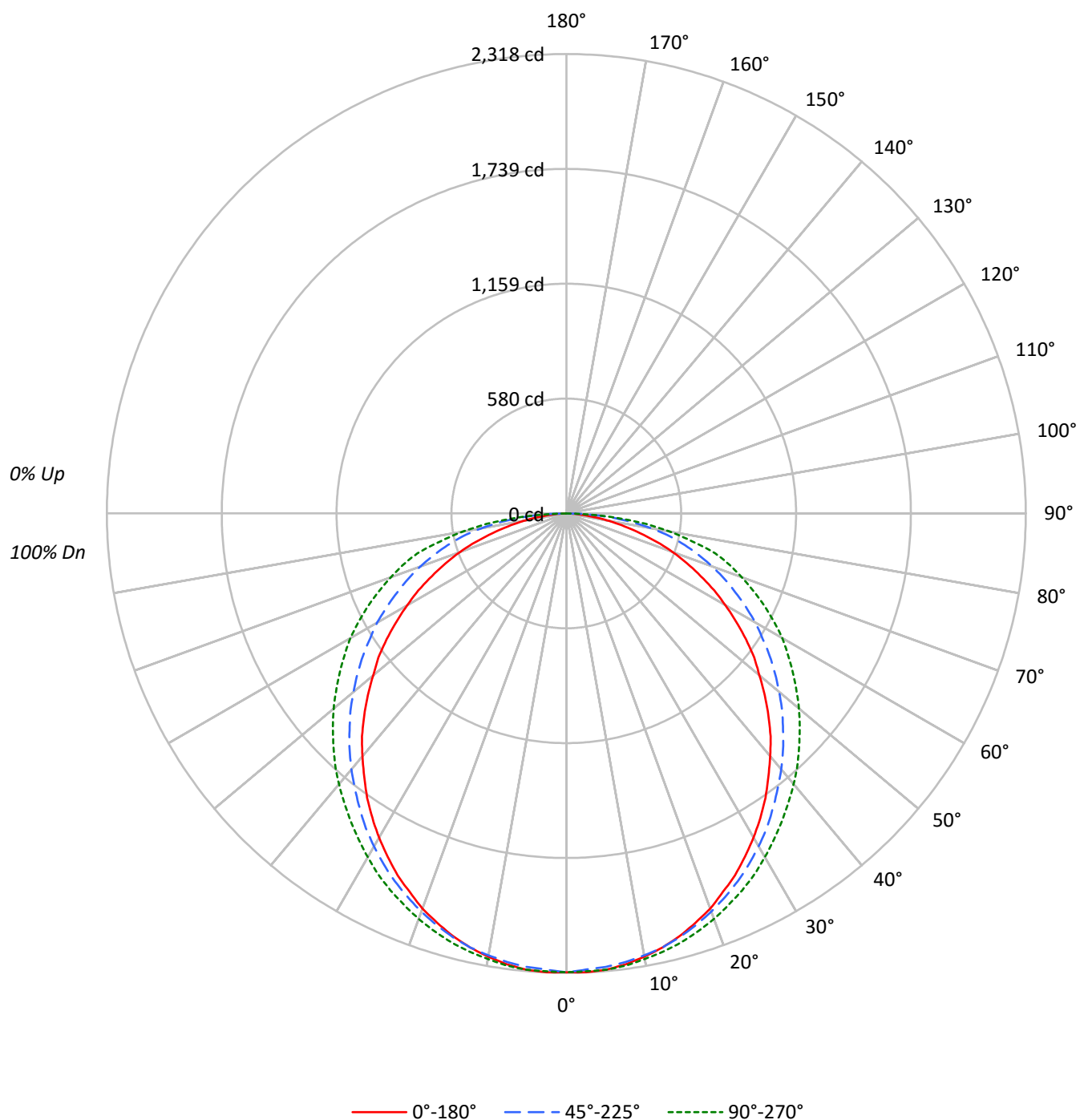
Input Watts (W): 64.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P311145

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-CP125-W2A-U-5700K

Luminous Intensity Polar Plot





TEST NUMBER: P311145

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-CP125-W2A-U-5700K

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°	3115	3115	3115
5°	3121	3102	3121
10°	3103	3093	3118
15°	3076	3082	3121
20°	3038	3061	3118
25°	2991	3039	3115
30°	2935	3014	3112
35°	2877	2984	3114
40°	2810	2962	3134
45°	2743	2943	3160
50°	2662	2935	3208
55°	2595	2940	3273
60°	2495	2965	3384
65°	2380	2996	3507
70°	2254	3088	3702
75°	2010	3221	4044
80°	1715	3411	4133
85°	1223	3379	3955



TEST NUMBER: P311145

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-CP125-W2A-U-5700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.1	3.1
10°-20°	626.5	8.9
20°-30°	946.3	13.5
30°-40°	1140.5	16.2
40°-50°	1197.3	17.1
50°-60°	1120.1	16.0
60°-70°	925.0	13.2
70°-80°	630.3	9.0
80°-90°	215.0	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°	1791.8	25.5
0°-40°	2932.3	41.8
0°-60°	5249.7	74.8
0°-90°	7020.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7020.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2315	2315	2315	2315	2315	
5°	2310	2308	2296	2310	2310	219
15°	2208	2210	2213	2236	2241	622
25°	2015	2024	2047	2087	2098	927
35°	1752	1770	1817	1877	1896	1095
45°	1442	1472	1546	1630	1661	1112
55°	1106	1151	1253	1356	1395	987
65°	748	810	941	1060	1102	742
75°	387	475	620	736	778	412
85°	79	156	219	247	256	99
90°	0	0	0	0	0	



TEST NUMBER: P311145

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-CP125-W2A-U-5700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2315.1	2315.1	2315.1	2315.1	2315.1
2.5°	2317.5	2315.1	2303.5	2315.1	2312.8
5°	2310.5	2308.1	2296.5	2310.5	2310.5
7.5°	2294.2	2294.2	2282.5	2298.8	2301.2
10°	2270.9	2270.9	2263.9	2282.5	2282.5
12.5°	2242.9	2242.9	2242.9	2261.6	2263.9
15°	2208.0	2210.3	2212.7	2235.9	2240.6
17.5°	2166.1	2170.7	2177.7	2205.7	2210.3
20°	2121.8	2126.5	2138.1	2170.7	2177.7
22.5°	2065.9	2077.6	2093.9	2131.1	2138.1
25°	2014.7	2024.0	2047.3	2086.9	2098.5
27.5°	1951.8	1965.8	1996.0	2038.0	2054.3
30°	1888.9	1902.9	1940.1	1989.1	2003.0
32.5°	1821.4	1842.3	1881.9	1933.2	1949.5
35°	1751.5	1770.1	1816.7	1877.3	1895.9
37.5°	1674.6	1700.3	1751.5	1816.7	1840.0
40°	1600.1	1628.0	1686.3	1756.1	1784.1
42.5°	1525.6	1553.5	1618.7	1697.9	1725.9
45°	1441.7	1472.0	1546.5	1630.4	1660.7
47.5°	1357.9	1395.1	1476.7	1565.2	1597.8
50°	1271.7	1313.6	1402.1	1495.3	1532.6
52.5°	1194.8	1234.4	1327.6	1427.7	1462.7
55°	1106.3	1150.6	1253.1	1355.5	1395.1
57.5°	1015.5	1064.4	1173.9	1285.7	1325.3
60°	927.0	980.6	1101.7	1213.5	1257.7
62.5°	840.8	894.4	1020.2	1136.6	1180.9
65°	747.6	810.5	941.0	1059.7	1101.7
67.5°	659.1	726.7	864.1	980.6	1022.5
70°	573.0	638.2	784.9	899.0	941.0
72.5°	479.8	554.3	701.1	819.8	864.1
75°	386.6	475.1	619.5	736.0	777.9
77.5°	300.5	391.3	535.7	631.2	652.2
80°	221.3	314.4	440.2	507.7	533.4
82.5°	142.1	235.2	335.4	384.3	405.3
85°	79.2	156.1	218.9	246.9	256.2
87.5°	32.6	67.5	88.5	100.2	100.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)