

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: P311807

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-S-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: P311807
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
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-S-CA125-W2A-U-4000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 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: 7202.0 lumens
Efficiency: N/A
Efficacy: 113.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

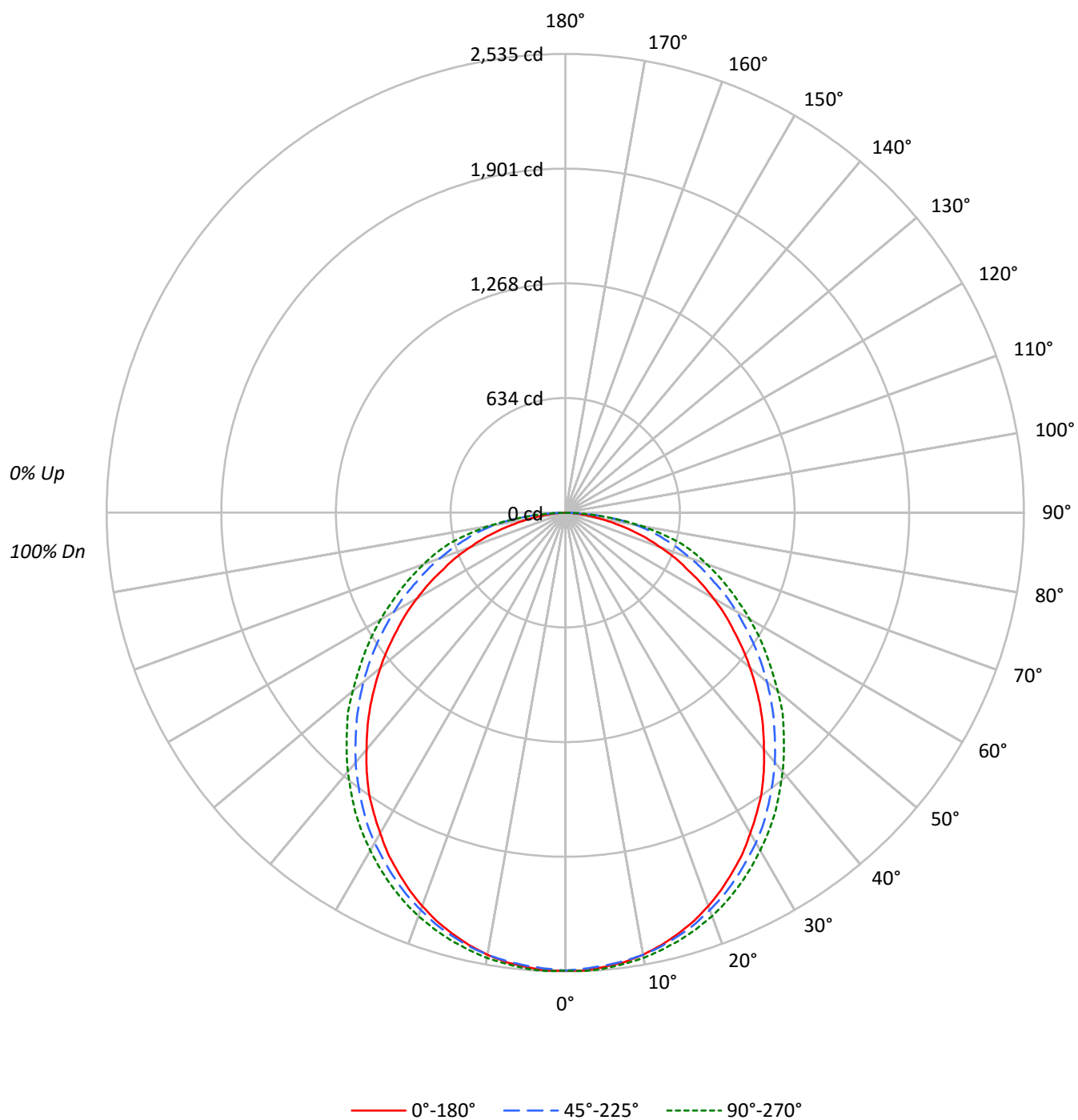
Input Watts (W): 63.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P311807

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-S-CA125-W2A-U-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P311807

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-S-CA125-W2A-U-4000K

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	99	95	106	101	97	93	97	93	90		93	90	88		83
2	98	90	83	77	96	88	81	76	84	79	74		81	76	72		69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		63	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	70	56	47	40	68	55	47	40	53	46	40		52	45	40		37
7	64	51	42	36	63	50	42	36	48	41	35		47	40	35		33
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3404	3404	3404
5°	3402	3393	3414
10°	3388	3388	3413
15°	3355	3371	3406
20°	3312	3344	3397
25°	3250	3311	3376
30°	3177	3273	3348
35°	3108	3220	3322
40°	3002	3166	3283
45°	2903	3104	3247
50°	2792	3045	3208
55°	2667	2989	3177
60°	2542	2943	3170
65°	2382	2891	3190
70°	2205	2907	3276
75°	1974	2961	3461
80°	1595	3137	3385
85°	1201	2754	2685



TEST NUMBER: P311807

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-S-CA125-W2A-U-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	239.5	3.3
10°-20°	684.4	9.5
20°-30°	1028.8	14.3
30°-40°	1225.5	17.0
40°-50°	1254.2	17.4
50°-60°	1129.2	15.7
60°-70°	886.8	12.3
70°-80°	575.5	8.0
80°-90°	178.0	2.5
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°	1952.8	27.1
0°-40°	3178.3	44.1
0°-60°	5561.7	77.2
0°-90°	7202.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7202.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2530	2530	2530	2530	2530	
5°	2519	2523	2512	2526	2528	239
15°	2409	2416	2420	2441	2446	679
25°	2189	2208	2230	2267	2274	1009
35°	1892	1915	1960	2008	2022	1180
45°	1526	1562	1631	1693	1707	1176
55°	1137	1187	1274	1340	1354	1019
65°	748	805	908	984	1002	745
75°	380	453	570	647	666	402
85°	78	144	178	174	174	94
90°	0	0	0	0	0	



TEST NUMBER: P311807

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-S-CA125-W2A-U-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2530.1	2530.1	2530.1	2530.1	2530.1
2.5°	2532.4	2532.4	2521.0	2532.4	2534.7
5°	2518.7	2523.2	2511.8	2525.5	2527.8
7.5°	2504.9	2504.9	2498.1	2511.8	2514.1
10°	2479.8	2482.1	2479.8	2495.8	2498.1
12.5°	2447.8	2452.3	2454.6	2470.6	2472.9
15°	2408.9	2415.7	2420.3	2440.9	2445.5
17.5°	2365.4	2372.3	2383.7	2406.6	2411.2
20°	2312.8	2321.9	2335.7	2365.4	2372.3
22.5°	2255.6	2264.7	2287.6	2315.1	2326.5
25°	2189.3	2207.6	2230.4	2267.0	2273.9
27.5°	2122.9	2138.9	2168.7	2207.6	2216.7
30°	2045.1	2070.3	2106.9	2145.8	2154.9
32.5°	1969.6	1994.8	2038.3	2079.4	2090.9
35°	1891.9	1914.7	1960.5	2008.5	2022.3
37.5°	1802.6	1832.4	1882.7	1930.8	1944.5
40°	1708.9	1745.5	1802.6	1853.0	1869.0
42.5°	1619.6	1658.5	1715.7	1770.6	1788.9
45°	1525.8	1562.4	1631.1	1692.8	1706.6
47.5°	1429.8	1470.9	1544.1	1605.9	1628.8
50°	1333.7	1377.1	1454.9	1519.0	1532.7
52.5°	1237.6	1283.4	1365.7	1434.3	1441.2
55°	1136.9	1187.3	1274.2	1340.5	1354.3
57.5°	1045.4	1088.9	1182.7	1251.3	1267.3
60°	944.8	992.8	1093.5	1157.5	1178.1
62.5°	848.7	899.0	1004.3	1068.3	1086.6
65°	748.1	805.2	908.2	983.7	1002.0
67.5°	661.1	716.0	825.8	899.0	917.3
70°	560.5	622.2	738.9	814.4	832.7
72.5°	473.5	537.6	654.3	727.5	754.9
75°	379.7	452.9	569.6	647.4	665.7
77.5°	288.2	372.9	491.8	551.3	551.3
80°	205.9	295.1	404.9	432.4	436.9
82.5°	135.0	221.9	299.7	297.4	297.4
85°	77.8	144.1	178.4	173.9	173.9
87.5°	29.7	59.5	64.1	64.1	61.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)