

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: P314515

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-S-CA08-W2A-U-3000K**

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: P314515
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-L83050-S-CA08-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.08" ACRYLIC SHEET
Light Source: (336) 3000K 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

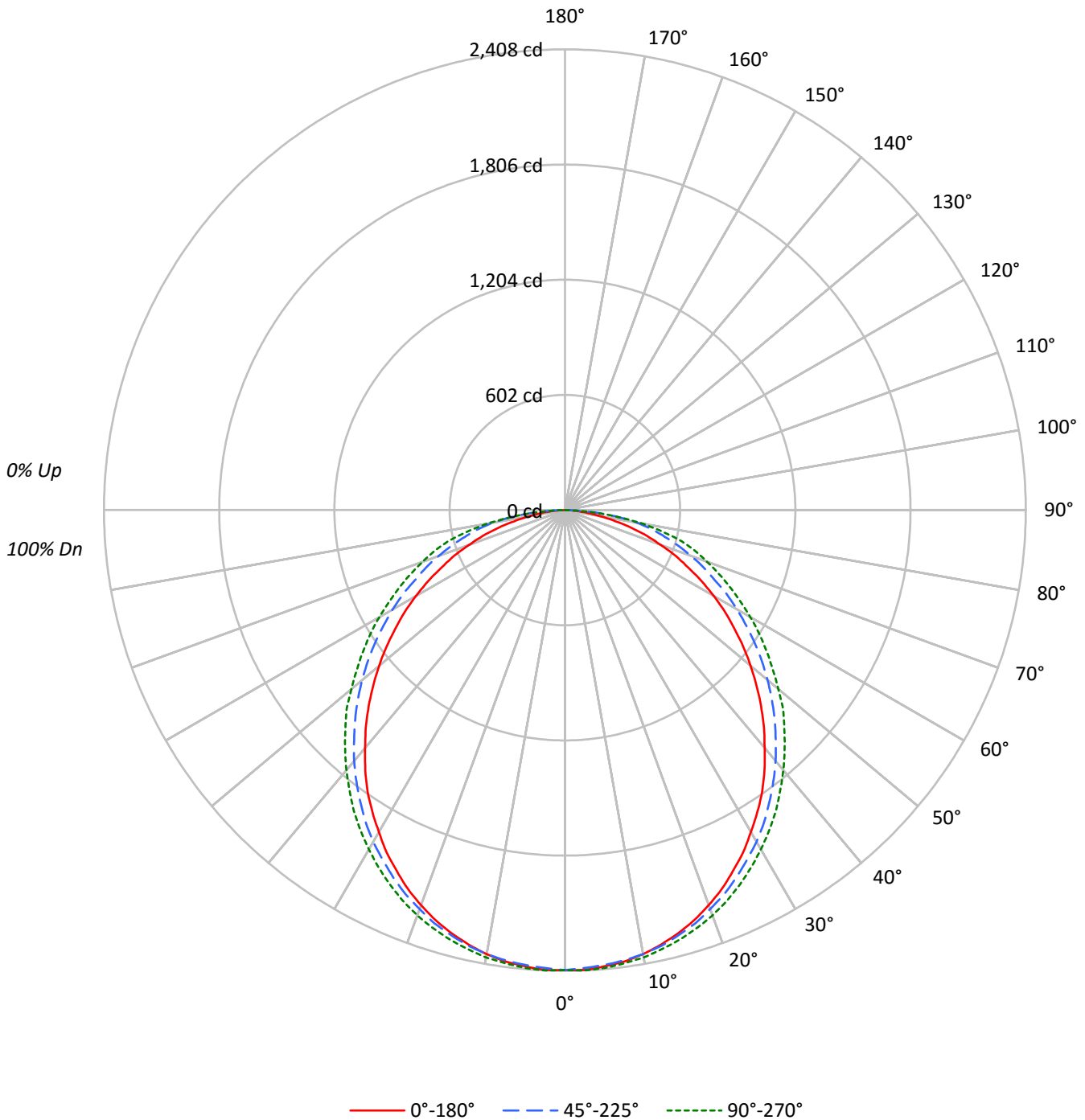
Lumens per Lamp: N/A
Luminaire Lumens: 6843.0 lumens
Efficiency: N/A
Efficacy: 109.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 62.7
Input Voltage (V): NR
Input Current (A_{in}): 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				10	0
RW	70	50	30	10	70	50	30	10	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	102	102	102	100
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3235	3235	3235
5°	3232	3223	3244
10°	3219	3219	3243
15°	3188	3203	3237
20°	3146	3178	3227
25°	3088	3146	3207
30°	3019	3110	3181
35°	2953	3060	3156
40°	2852	3008	3119
45°	2759	2949	3085
50°	2653	2894	3048
55°	2534	2840	3019
60°	2416	2796	3012
65°	2263	2747	3031
70°	2095	2762	3113
75°	1876	2813	3288
80°	1516	2981	3217
85°	1141	2617	2550



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	227.6	3.3
10°-20°	650.3	9.5
20°-30°	977.5	14.3
30°-40°	1164.4	17.0
40°-50°	1191.7	17.4
50°-60°	1072.9	15.7
60°-70°	842.6	12.3
70°-80°	546.8	8.0
80°-90°	169.1	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°	1855.4	27.1
0°-40°	3019.9	44.1
0°-60°	5284.5	77.2
0°-90°	6843.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6843.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2404	2404	2404	2404	2404	
5°	2393	2398	2387	2400	2402	227
15°	2289	2295	2300	2319	2324	645
25°	2080	2098	2119	2154	2160	958
35°	1798	1819	1863	1908	1922	1121
45°	1450	1485	1550	1608	1622	1118
55°	1080	1128	1211	1274	1287	968
65°	711	765	863	935	952	708
75°	361	430	541	615	632	382
85°	74	137	170	165	165	89
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2404.0	2404.0	2404.0	2404.0	2404.0
2.5°	2406.2	2406.2	2395.3	2406.2	2408.3
5°	2393.1	2397.5	2386.6	2399.6	2401.8
7.5°	2380.1	2380.1	2373.6	2386.6	2388.8
10°	2356.2	2358.3	2356.2	2371.4	2373.6
12.5°	2325.7	2330.1	2332.3	2347.5	2349.7
15°	2288.8	2295.3	2299.7	2319.2	2323.6
17.5°	2247.5	2254.0	2264.9	2286.6	2291.0
20°	2197.5	2206.2	2219.2	2247.5	2254.0
22.5°	2143.2	2151.9	2173.6	2199.7	2210.5
25°	2080.1	2097.5	2119.3	2154.0	2160.5
27.5°	2017.1	2032.3	2060.6	2097.5	2106.2
30°	1943.2	1967.1	2001.9	2038.8	2047.5
32.5°	1871.5	1895.4	1936.7	1975.8	1986.7
35°	1797.6	1819.3	1862.8	1908.4	1921.5
37.5°	1712.8	1741.0	1788.9	1834.5	1847.6
40°	1623.7	1658.4	1712.8	1760.6	1775.8
42.5°	1538.9	1575.9	1630.2	1682.4	1699.7
45°	1449.8	1484.6	1549.8	1608.5	1621.5
47.5°	1358.5	1397.6	1467.2	1525.9	1547.6
50°	1267.2	1308.5	1382.4	1443.3	1456.3
52.5°	1175.9	1219.4	1297.6	1362.8	1369.4
55°	1080.3	1128.1	1210.7	1273.7	1286.8
57.5°	993.3	1034.6	1123.7	1189.0	1204.2
60°	897.7	943.3	1039.0	1099.8	1119.4
62.5°	806.4	854.2	954.2	1015.1	1032.5
65°	710.8	765.1	862.9	934.6	952.0
67.5°	628.2	680.3	784.7	854.2	871.6
70°	532.5	591.2	702.1	773.8	791.2
72.5°	449.9	510.8	621.6	691.2	717.3
75°	360.8	430.4	541.2	615.1	632.5
77.5°	273.9	354.3	467.3	523.8	523.8
80°	195.6	280.4	384.7	410.8	415.2
82.5°	128.2	210.8	284.7	282.6	282.6
85°	73.9	136.9	169.5	165.2	165.2
87.5°	28.3	56.5	60.9	60.9	58.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)