

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: P313394

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-HRP-CA08-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: P313394
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
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-HRP-CA08-W2A-U-5000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC 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: 5675.0 lumens
Efficiency: N/A
Efficacy: 86.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

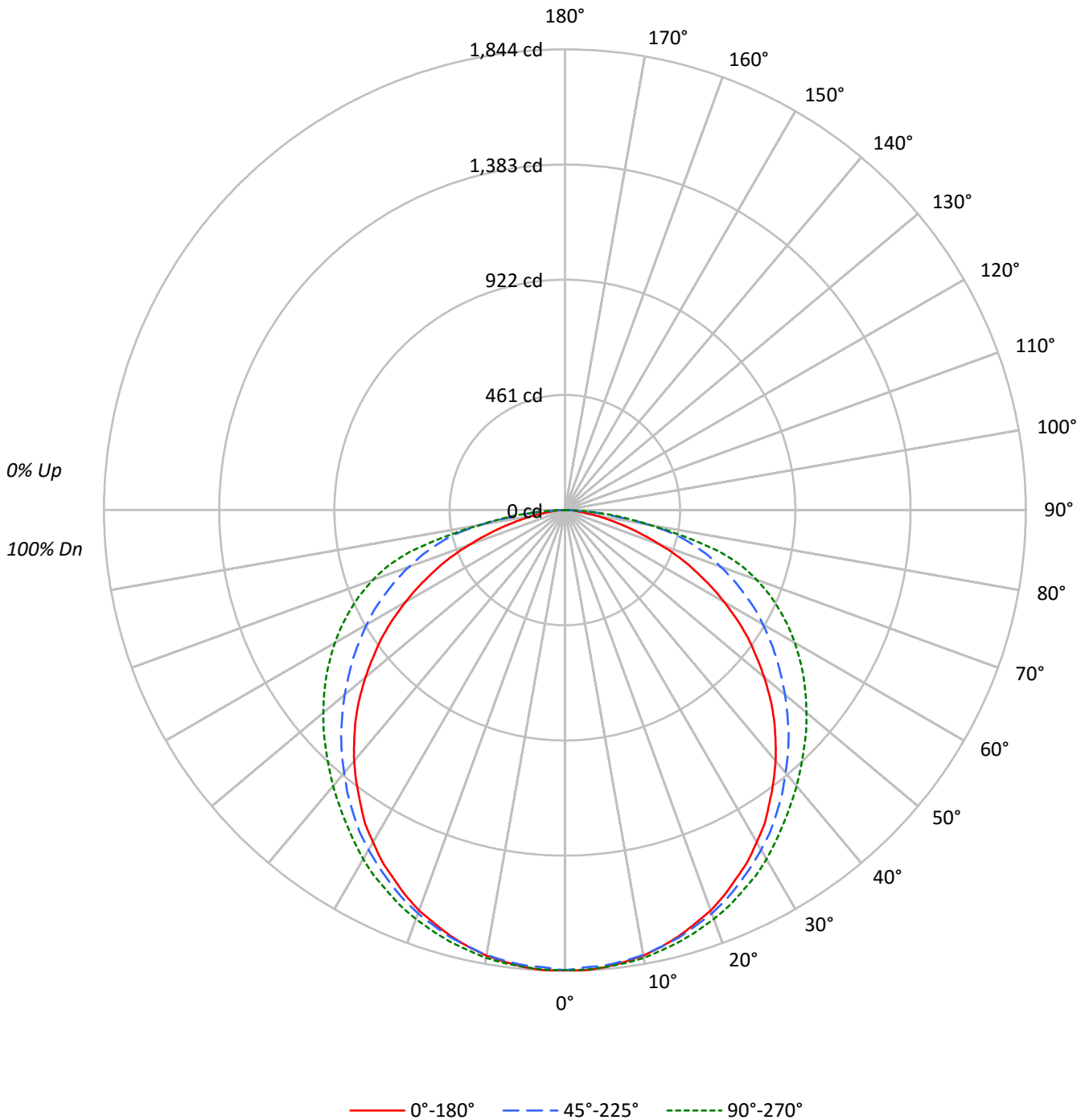
Input Watts (W): 65.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P313394

CATALOG NUMBER: 24FCZ2-75HE-UNV-L83050-HRP-CA08-W2A-U-5000K

Luminous Intensity Polar Plot





TEST NUMBER: P313394

CATALOG NUMBER: 24FCZ2-75HE-UNV-L83050-HRP-CA08-W2A-U-5000K

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	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	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	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2477	2477	2477
5°	2480	2471	2480
10°	2473	2470	2486
15°	2459	2466	2489
20°	2442	2459	2494
25°	2413	2448	2497
30°	2385	2440	2506
35°	2345	2427	2509
40°	2304	2412	2533
45°	2251	2410	2572
50°	2178	2407	2641
55°	2101	2424	2736
60°	1982	2461	2858
65°	1830	2519	3018
70°	1598	2608	3215
75°	1297	2742	3322
80°	957	2688	2688
85°	733	1981	2237



TEST NUMBER: P313394

CATALOG NUMBER: 24FCZ2-75HE-UNV-L83050-HRP-CA08-W2A-U-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.4	3.1
10°-20°	500.9	8.8
20°-30°	762.5	13.4
30°-40°	925.9	16.3
40°-50°	978.2	17.2
50°-60°	923.0	16.3
60°-70°	767.5	13.5
70°-80°	504.9	8.9
80°-90°	137.6	2.4
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°	1437.8	25.3
0°-40°	2363.7	41.7
0°-60°	4265.0	75.2
0°-90°	5675.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5675.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1841	1841	1841	1841	1841	
5°	1836	1836	1829	1836	1836	174
15°	1765	1768	1770	1787	1787	498
25°	1625	1635	1649	1677	1682	750
35°	1428	1444	1478	1516	1528	894
45°	1183	1207	1266	1328	1352	911
55°	896	934	1034	1131	1166	798
65°	575	642	791	908	948	568
75°	250	364	527	625	639	269
85°	48	104	128	142	145	58
90°	0	0	0	0	0	



TEST NUMBER: P313394

CATALOG NUMBER: 24FCZ2-75HE-UNV-L83050-HRP-CA08-W2A-U-5000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1841.3	1841.3	1841.3	1841.3	1841.3
2.5°	1843.6	1841.3	1831.8	1841.3	1841.3
5°	1836.5	1836.5	1829.4	1836.5	1836.5
7.5°	1824.6	1824.6	1819.9	1829.4	1829.4
10°	1810.4	1810.4	1808.0	1819.9	1819.9
12.5°	1789.0	1791.4	1789.0	1803.2	1803.2
15°	1765.2	1767.6	1770.0	1786.6	1786.6
17.5°	1734.3	1739.1	1743.8	1762.9	1765.2
20°	1705.8	1708.2	1717.7	1739.1	1741.5
22.5°	1667.8	1675.0	1686.8	1708.2	1715.3
25°	1625.1	1634.6	1648.8	1677.3	1682.1
27.5°	1584.7	1591.8	1610.8	1641.7	1651.2
30°	1534.8	1546.7	1570.4	1601.3	1613.2
32.5°	1487.3	1499.1	1527.7	1560.9	1570.4
35°	1427.9	1444.5	1477.8	1515.8	1527.7
37.5°	1370.8	1387.5	1427.9	1470.6	1484.9
40°	1311.5	1330.5	1373.2	1423.1	1442.1
42.5°	1247.3	1273.4	1321.0	1375.6	1397.0
45°	1183.2	1206.9	1266.3	1328.1	1351.8
47.5°	1114.3	1142.8	1206.9	1280.6	1309.1
50°	1040.6	1076.2	1149.9	1230.7	1261.6
52.5°	967.0	1007.3	1090.5	1180.8	1214.0
55°	895.7	933.7	1033.5	1130.9	1166.5
57.5°	817.3	864.8	974.1	1078.6	1114.3
60°	736.5	788.8	914.7	1024.0	1062.0
62.5°	655.7	715.1	857.7	967.0	1007.3
65°	574.9	641.5	791.1	907.6	948.0
67.5°	496.5	570.2	729.4	845.8	886.2
70°	406.3	498.9	662.9	776.9	817.3
72.5°	323.1	430.0	598.7	705.6	741.3
75°	249.5	363.5	527.4	624.8	639.1
77.5°	182.9	297.0	453.8	487.0	489.4
80°	123.5	237.6	346.9	342.1	346.9
82.5°	80.8	178.2	218.6	244.7	247.1
85°	47.5	104.5	128.3	142.5	144.9
87.5°	23.8	35.6	45.1	47.5	52.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)