

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: P309776

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-HRP-CA08-W2A-U-5500K**

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: P309776
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-L82765-HRP-CA08-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC SHEET
Light Source: (336) 5500K 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: 5436.0 lumens
Efficiency: N/A
Efficacy: 84.1 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

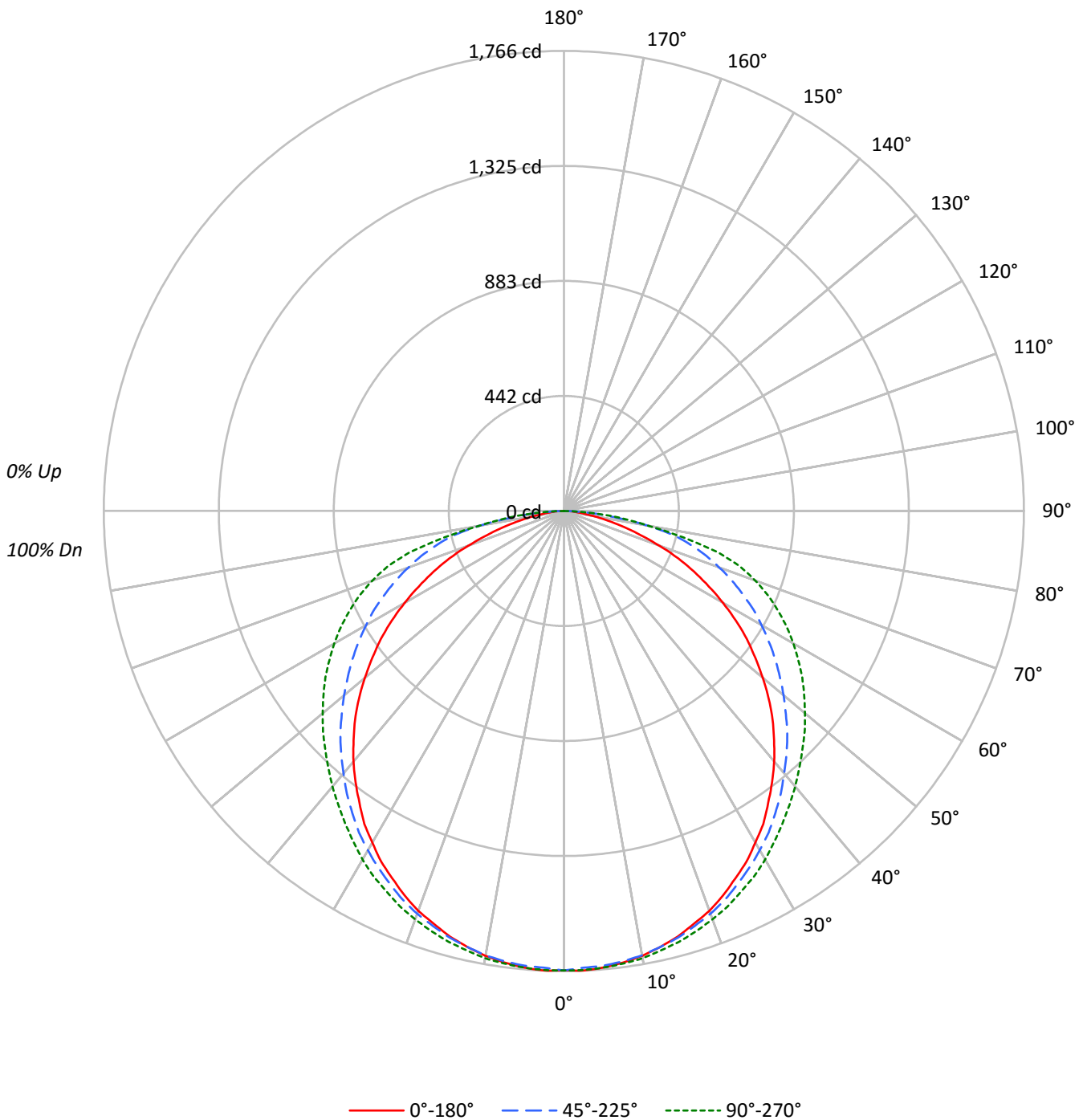
Input Watts (W): 64.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P309776

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-HRP-CA08-W2A-U-5500K

Luminous Intensity Polar Plot





TEST NUMBER: P309776

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-HRP-CA08-W2A-U-5500K

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°	2373	2373	2373
5°	2376	2367	2376
10°	2369	2366	2382
15°	2355	2362	2384
20°	2340	2356	2388
25°	2311	2345	2392
30°	2284	2337	2401
35°	2247	2325	2404
40°	2206	2310	2426
45°	2156	2308	2464
50°	2087	2306	2529
55°	2013	2322	2621
60°	1898	2358	2738
65°	1753	2413	2891
70°	1531	2498	3080
75°	1242	2626	3183
80°	917	2575	2575
85°	702	1897	2143



TEST NUMBER: P309776

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-HRP-CA08-W2A-U-5500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.1	3.1
10°-20°	479.8	8.8
20°-30°	730.4	13.4
30°-40°	886.9	16.3
40°-50°	937.0	17.2
50°-60°	884.2	16.3
60°-70°	735.2	13.5
70°-80°	483.7	8.9
80°-90°	131.8	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°	1377.3	25.3
0°-40°	2264.2	41.7
0°-60°	4085.4	75.2
0°-90°	5436.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5436.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1764	1764	1764	1764	1764	
5°	1759	1759	1752	1759	1759	167
15°	1691	1693	1695	1711	1711	477
25°	1557	1566	1579	1607	1611	718
35°	1368	1384	1416	1452	1463	856
45°	1133	1156	1213	1272	1295	873
55°	858	894	990	1083	1117	764
65°	551	614	758	869	908	544
75°	239	348	505	598	612	257
85°	46	100	123	136	139	56
90°	0	0	0	0	0	



TEST NUMBER: P309776

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-HRP-CA08-W2A-U-5500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1763.7	1763.7	1763.7	1763.7	1763.7
2.5°	1766.0	1763.7	1754.6	1763.7	1763.7
5°	1759.2	1759.2	1752.3	1759.2	1759.2
7.5°	1747.8	1747.8	1743.2	1752.3	1752.3
10°	1734.1	1734.1	1731.9	1743.2	1743.2
12.5°	1713.6	1715.9	1713.6	1727.3	1727.3
15°	1690.9	1693.2	1695.4	1711.4	1711.4
17.5°	1661.3	1665.9	1670.4	1688.6	1690.9
20°	1634.0	1636.3	1645.4	1665.9	1668.1
22.5°	1597.6	1604.4	1615.8	1636.3	1643.1
25°	1556.6	1565.7	1579.4	1606.7	1611.2
27.5°	1517.9	1524.8	1543.0	1572.6	1581.7
30°	1470.1	1481.5	1504.3	1533.9	1545.2
32.5°	1424.6	1436.0	1463.3	1495.2	1504.3
35°	1367.7	1383.7	1415.5	1451.9	1463.3
37.5°	1313.1	1329.0	1367.7	1408.7	1422.4
40°	1256.2	1274.4	1315.4	1363.2	1381.4
42.5°	1194.8	1219.8	1265.3	1317.7	1338.1
45°	1133.3	1156.1	1213.0	1272.2	1294.9
47.5°	1067.3	1094.6	1156.1	1226.6	1253.9
50°	996.8	1030.9	1101.5	1178.8	1208.4
52.5°	926.2	964.9	1044.6	1131.1	1162.9
55°	858.0	894.4	990.0	1083.3	1117.4
57.5°	782.9	828.4	933.1	1033.2	1067.3
60°	705.5	755.6	876.2	980.9	1017.3
62.5°	628.1	685.0	821.5	926.2	964.9
65°	550.7	614.5	757.8	869.3	908.0
67.5°	475.6	546.2	698.7	810.2	848.9
70°	389.2	477.9	634.9	744.2	782.9
72.5°	309.5	411.9	573.5	675.9	710.0
75°	239.0	348.2	505.2	598.5	612.2
77.5°	175.2	284.5	434.7	466.5	468.8
80°	118.3	227.6	332.3	327.7	332.3
82.5°	77.4	170.7	209.4	234.4	236.7
85°	45.5	100.1	122.9	136.5	138.8
87.5°	22.8	34.1	43.2	45.5	50.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)