

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: P313402

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-HRP-CP125-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: P313402
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-CP125-W2A-U-4000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB 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: 5492.0 lumens
Efficiency: N/A
Efficacy: 85.5 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

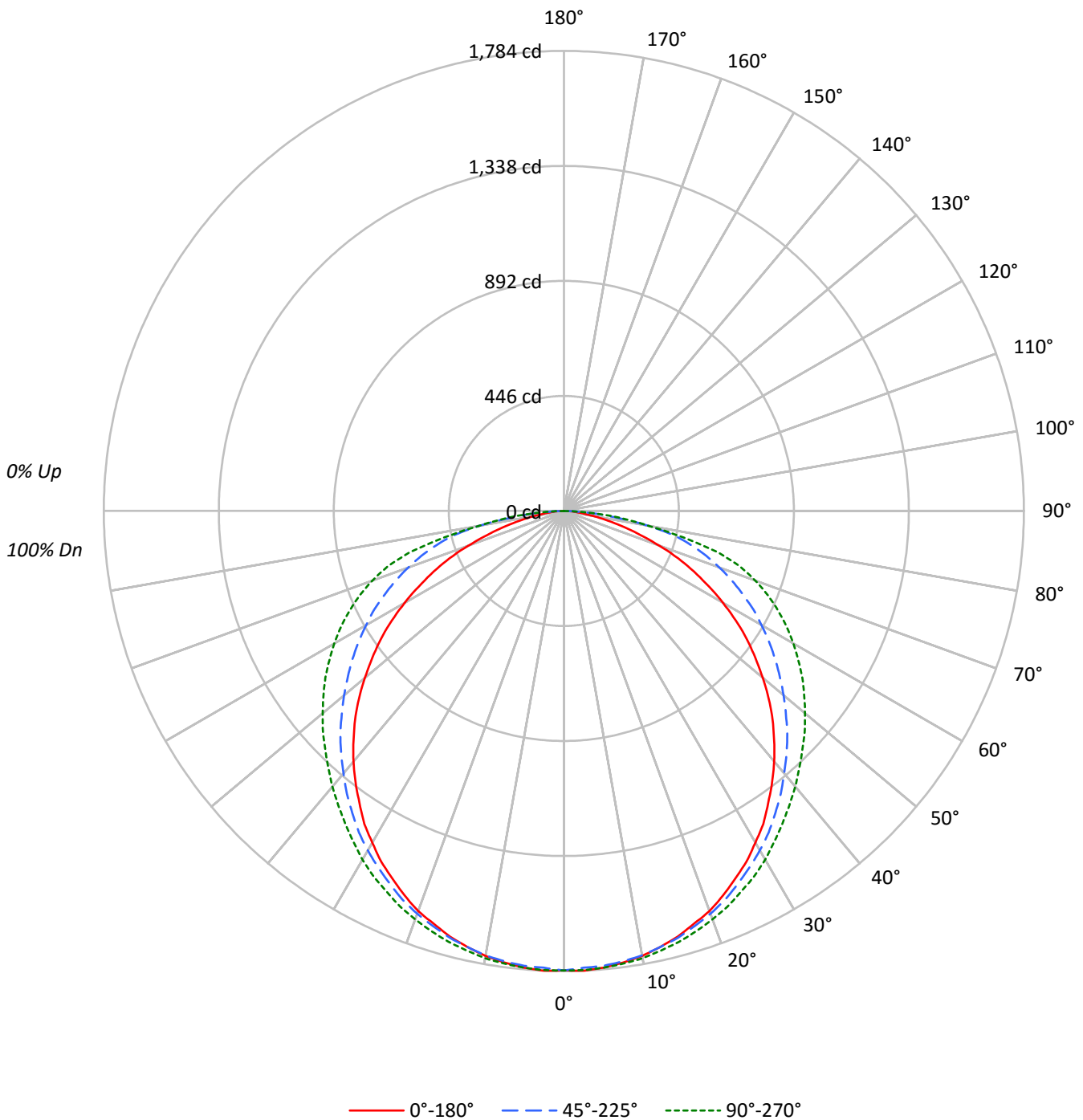
Input Watts (W): 64.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P313402

CATALOG NUMBER: 24FCZ2-75HE-UNV-L83050-HRP-CP125-W2A-U-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P313402

CATALOG NUMBER: 24FCZ2-75HE-UNV-L83050-HRP-CP125-W2A-U-4000K

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°	2398	2398	2398
5°	2400	2391	2400
10°	2394	2391	2406
15°	2380	2386	2408
20°	2364	2380	2413
25°	2335	2369	2417
30°	2308	2361	2426
35°	2270	2349	2428
40°	2229	2334	2451
45°	2179	2332	2489
50°	2108	2329	2556
55°	2033	2346	2648
60°	1918	2382	2766
65°	1771	2437	2921
70°	1547	2524	3111
75°	1255	2653	3215
80°	927	2601	2601
85°	710	1917	2166



TEST NUMBER: P313402

CATALOG NUMBER: 24FCZ2-75HE-UNV-L83050-HRP-CP125-W2A-U-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.8	3.1
10°-20°	484.7	8.8
20°-30°	737.9	13.4
30°-40°	896.0	16.3
40°-50°	946.7	17.2
50°-60°	893.3	16.3
60°-70°	742.7	13.5
70°-80°	488.6	8.9
80°-90°	133.2	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°	1391.5	25.3
0°-40°	2287.5	41.7
0°-60°	4127.4	75.2
0°-90°	5492.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5492.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1782	1782	1782	1782	1782	
5°	1777	1777	1770	1777	1777	169
15°	1708	1711	1713	1729	1729	482
25°	1573	1582	1596	1623	1628	725
35°	1382	1398	1430	1467	1478	865
45°	1145	1168	1226	1285	1308	882
55°	867	904	1000	1094	1129	772
65°	556	621	766	878	917	550
75°	241	352	510	605	618	260
85°	46	101	124	138	140	56
90°	0	0	0	0	0	



TEST NUMBER: P313402

CATALOG NUMBER: 24FCZ2-75HE-UNV-L83050-HRP-CP125-W2A-U-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1781.9	1781.9	1781.9	1781.9	1781.9
2.5°	1784.2	1781.9	1772.7	1781.9	1781.9
5°	1777.3	1777.3	1770.4	1777.3	1777.3
7.5°	1765.8	1765.8	1761.2	1770.4	1770.4
10°	1752.0	1752.0	1749.7	1761.2	1761.2
12.5°	1731.3	1733.6	1731.3	1745.1	1745.1
15°	1708.3	1710.6	1712.9	1729.0	1729.0
17.5°	1678.4	1683.0	1687.6	1706.0	1708.3
20°	1650.8	1653.1	1662.3	1683.0	1685.3
22.5°	1614.0	1620.9	1632.4	1653.1	1660.0
25°	1572.7	1581.9	1595.6	1623.2	1627.8
27.5°	1533.6	1540.5	1558.9	1588.8	1597.9
30°	1485.3	1496.8	1519.8	1549.7	1561.2
32.5°	1439.3	1450.8	1478.4	1510.6	1519.8
35°	1381.8	1397.9	1430.1	1466.9	1478.4
37.5°	1326.6	1342.7	1381.8	1423.2	1437.0
40°	1269.2	1287.6	1328.9	1377.2	1395.6
42.5°	1207.1	1232.4	1278.4	1331.2	1351.9
45°	1145.0	1168.0	1225.5	1285.3	1308.2
47.5°	1078.3	1105.9	1168.0	1239.3	1266.9
50°	1007.1	1041.5	1112.8	1191.0	1220.9
52.5°	935.8	974.9	1055.3	1142.7	1174.9
55°	866.8	903.6	1000.2	1094.4	1128.9
57.5°	790.9	836.9	942.7	1043.8	1078.3
60°	712.8	763.3	885.2	991.0	1027.7
62.5°	634.6	692.1	830.0	935.8	974.9
65°	556.4	620.8	765.6	878.3	917.4
67.5°	480.5	551.8	705.9	818.5	857.6
70°	393.2	482.8	641.5	751.8	790.9
72.5°	312.7	416.2	579.4	682.9	717.4
75°	241.4	351.8	510.4	604.7	618.5
77.5°	177.0	287.4	439.1	471.3	473.6
80°	119.6	229.9	335.7	331.1	335.7
82.5°	78.2	172.4	211.5	236.8	239.1
85°	46.0	101.2	124.2	138.0	140.3
87.5°	23.0	34.5	43.7	46.0	50.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)