

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: P313398

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-HRP-CA125-W2A-U-4500K**

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: P313398
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-CA125-W2A-U-4500K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 4500K 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: 5655.0 lumens
Efficiency: N/A
Efficacy: 85.8 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

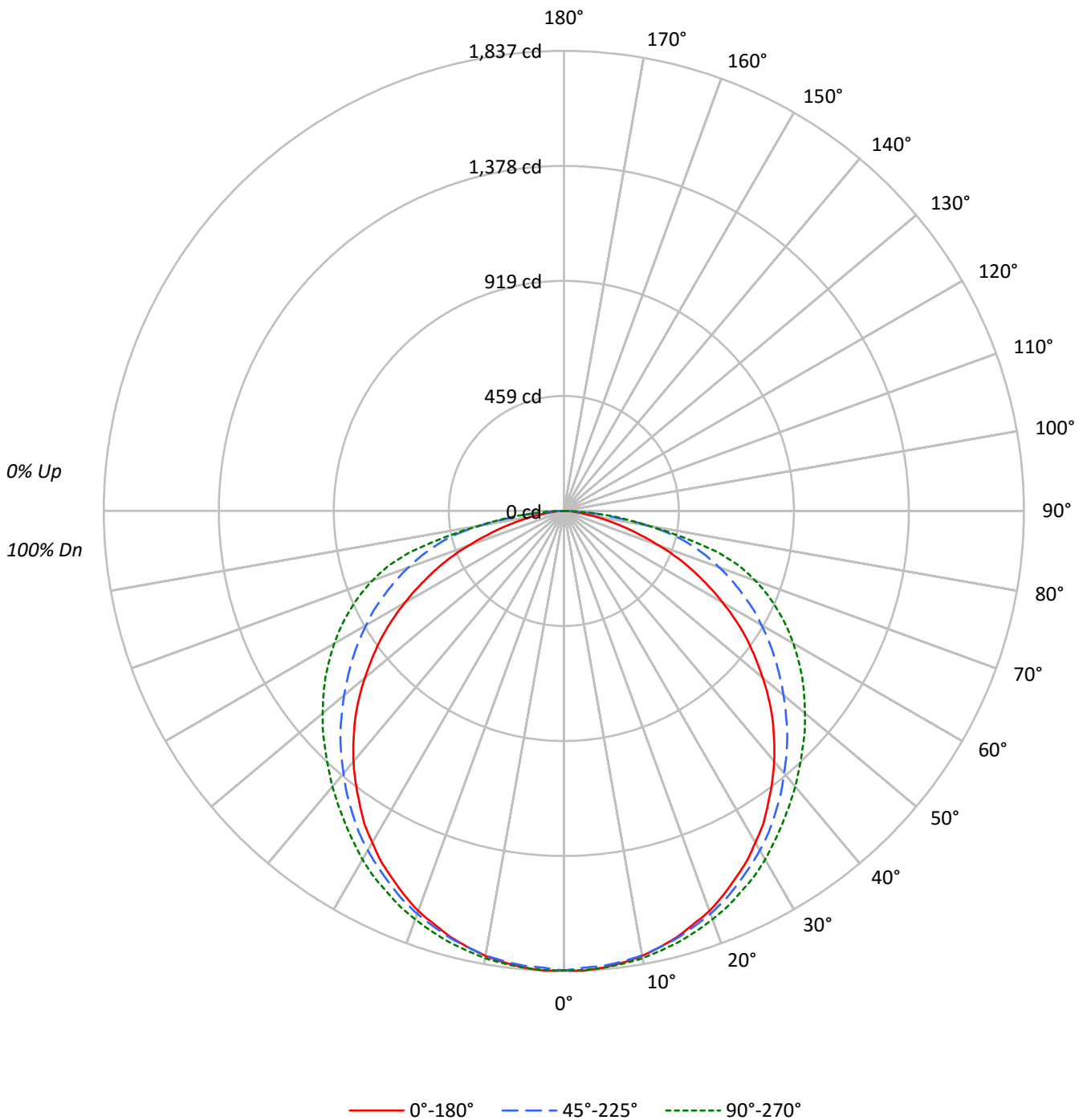
Input Watts (W): 65.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P313398

CATALOG NUMBER: 24FCZ2-75HE-UNV-L83050-HRP-CA125-W2A-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P313398

CATALOG NUMBER: 24FCZ2-75HE-UNV-L83050-HRP-CA125-W2A-U-4500K

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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82				82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67				67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56				56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48				48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41				41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36				36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31				31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28				28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25				25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23				23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2469	2469	2469
5°	2472	2462	2472
10°	2465	2461	2478
15°	2450	2457	2480
20°	2434	2451	2485
25°	2404	2439	2488
30°	2376	2431	2497
35°	2337	2419	2500
40°	2295	2403	2524
45°	2243	2401	2563
50°	2170	2398	2631
55°	2094	2416	2727
60°	1975	2453	2848
65°	1824	2510	3007
70°	1592	2598	3204
75°	1292	2732	3310
80°	954	2678	2678
85°	730	1973	2229



TEST NUMBER: P313398

CATALOG NUMBER: 24FCZ2-75HE-UNV-L83050-HRP-CA125-W2A-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.8	3.1
10°-20°	499.1	8.8
20°-30°	759.8	13.4
30°-40°	922.6	16.3
40°-50°	974.8	17.2
50°-60°	919.8	16.3
60°-70°	764.8	13.5
70°-80°	503.1	8.9
80°-90°	137.1	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°	1432.8	25.3
0°-40°	2355.4	41.7
0°-60°	4249.9	75.2
0°-90°	5655.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5655.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1835	1835	1835	1835	1835	
5°	1830	1830	1823	1830	1830	174
15°	1759	1761	1764	1780	1780	496
25°	1619	1629	1643	1671	1676	747
35°	1423	1439	1473	1510	1522	891
45°	1179	1203	1262	1323	1347	908
55°	892	930	1030	1127	1162	795
65°	573	639	788	904	945	566
75°	249	362	526	623	637	268
85°	47	104	128	142	144	58
90°	0	0	0	0	0	



TEST NUMBER: P313398

CATALOG NUMBER: 24FCZ2-75HE-UNV-L83050-HRP-CA125-W2A-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1834.8	1834.8	1834.8	1834.8	1834.8
2.5°	1837.1	1834.8	1825.3	1834.8	1834.8
5°	1830.0	1830.0	1822.9	1830.0	1830.0
7.5°	1818.2	1818.2	1813.5	1822.9	1822.9
10°	1804.0	1804.0	1801.6	1813.5	1813.5
12.5°	1782.7	1785.1	1782.7	1796.9	1796.9
15°	1759.0	1761.4	1763.7	1780.3	1780.3
17.5°	1728.2	1733.0	1737.7	1756.6	1759.0
20°	1699.8	1702.2	1711.7	1733.0	1735.3
22.5°	1661.9	1669.0	1680.9	1702.2	1709.3
25°	1619.3	1628.8	1643.0	1671.4	1676.2
27.5°	1579.1	1586.2	1605.1	1635.9	1645.4
30°	1529.4	1541.2	1564.9	1595.7	1607.5
32.5°	1482.0	1493.9	1522.3	1555.4	1564.9
35°	1422.8	1439.4	1472.6	1510.4	1522.3
37.5°	1366.0	1382.6	1422.8	1465.4	1479.7
40°	1306.8	1325.8	1368.4	1418.1	1437.0
42.5°	1242.9	1269.0	1316.3	1370.8	1392.1
45°	1179.0	1202.7	1261.8	1323.4	1347.1
47.5°	1110.3	1138.7	1202.7	1276.1	1304.5
50°	1036.9	1072.5	1145.8	1226.3	1257.1
52.5°	963.5	1003.8	1086.7	1176.6	1209.8
55°	892.5	930.4	1029.8	1126.9	1162.4
57.5°	814.4	861.7	970.7	1074.8	1110.3
60°	733.9	786.0	911.5	1020.4	1058.2
62.5°	653.4	712.6	854.6	963.5	1003.8
65°	572.9	639.2	788.4	904.4	944.6
67.5°	494.8	568.2	726.8	842.8	883.1
70°	404.8	497.2	660.5	774.2	814.4
72.5°	322.0	428.5	596.6	703.1	738.6
75°	248.6	362.2	525.6	622.6	636.8
77.5°	182.3	295.9	452.2	485.3	487.7
80°	123.1	236.7	345.6	340.9	345.6
82.5°	80.5	177.6	217.8	243.8	246.2
85°	47.3	104.2	127.8	142.0	144.4
87.5°	23.7	35.5	45.0	47.3	52.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)