

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: P313776

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-RDP-CP125-W2A-U-3500K**

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: P313776
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
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-RDP-CP125-W2A-U-3500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (336) 3500K 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: 4529.0 lumens
Efficiency: N/A
Efficacy: 72.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

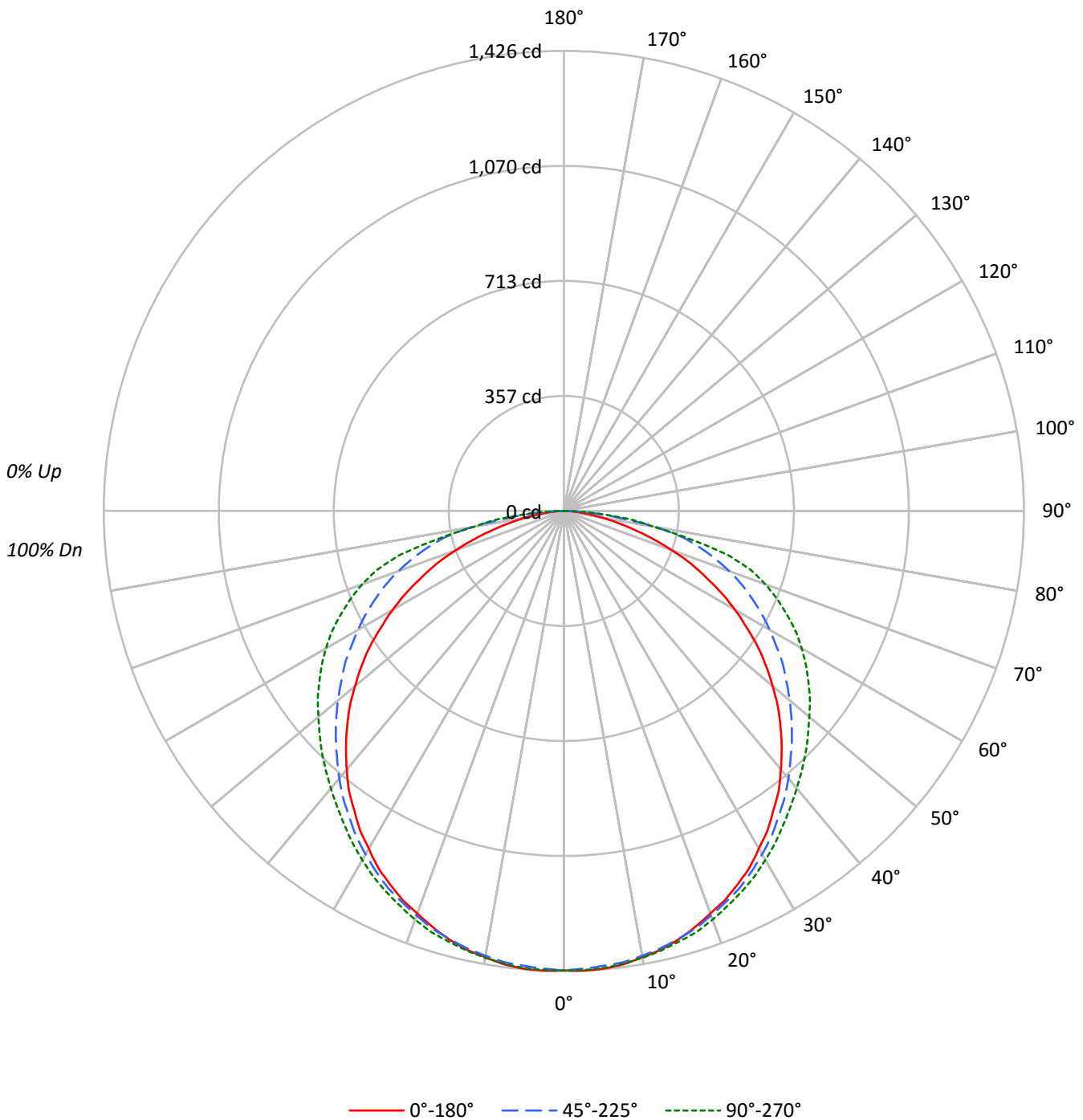
Input Watts (W): 62.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P313776

CATALOG NUMBER: 24FCZ2-75HE-UNV-L83050-RDP-CP125-W2A-U-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P313776

CATALOG NUMBER: 24FCZ2-75HE-UNV-L83050-RDP-CP125-W2A-U-3500K

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	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1916	1916	1916
5°	1924	1912	1921
10°	1918	1912	1921
15°	1915	1912	1925
20°	1901	1911	1930
25°	1894	1914	1934
30°	1878	1909	1940
35°	1860	1904	1948
40°	1839	1902	1973
45°	1808	1902	2018
50°	1768	1914	2078
55°	1723	1944	2171
60°	1650	1983	2291
65°	1545	2053	2432
70°	1405	2148	2616
75°	1191	2266	2733
80°	940	2280	2211
85°	693	1734	1942



TEST NUMBER: P313776

CATALOG NUMBER: 24FCZ2-75HE-UNV-L83050-RDP-CP125-W2A-U-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.1	3.0
10°-20°	388.8	8.6
20°-30°	594.6	13.1
30°-40°	726.9	16.0
40°-50°	774.7	17.1
50°-60°	740.7	16.4
60°-70°	627.5	13.9
70°-80°	421.7	9.3
80°-90°	119.0	2.6
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°	1118.5	24.7
0°-40°	1845.4	40.7
0°-60°	3360.8	74.2
0°-90°	4529.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4529.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1424	1424	1424	1424	1424	
5°	1424	1422	1415	1422	1422	135
15°	1375	1375	1373	1384	1382	388
25°	1276	1280	1290	1301	1303	588
35°	1132	1141	1159	1182	1186	709
45°	950	966	1000	1042	1060	733
55°	735	762	829	894	926	654
65°	485	535	645	730	764	482
75°	229	312	436	510	526	245
85°	45	92	112	121	126	56
90°	0	0	0	0	0	



TEST NUMBER: P313776

CATALOG NUMBER: 24FCZ2-75HE-UNV-L83050-RDP-CP125-W2A-U-3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1424.2	1424.2	1424.2	1424.2	1424.2
2.5°	1426.5	1426.5	1419.7	1424.2	1424.2
5°	1424.2	1422.0	1415.3	1422.0	1422.0
7.5°	1417.5	1415.3	1410.8	1417.5	1415.3
10°	1404.0	1404.0	1399.5	1406.3	1406.3
12.5°	1392.8	1390.5	1388.3	1397.3	1395.0
15°	1374.8	1374.8	1372.6	1383.8	1381.6
17.5°	1352.4	1354.6	1356.8	1365.8	1368.1
20°	1327.6	1332.1	1334.4	1347.9	1347.9
22.5°	1305.2	1307.4	1311.9	1325.4	1325.4
25°	1276.0	1280.5	1289.5	1300.7	1302.9
27.5°	1246.8	1249.0	1260.3	1276.0	1278.2
30°	1208.6	1215.3	1228.8	1246.8	1249.0
32.5°	1174.9	1181.6	1197.4	1215.3	1219.8
35°	1132.2	1141.2	1159.2	1181.6	1186.1
37.5°	1094.0	1100.8	1123.2	1147.9	1154.7
40°	1046.8	1060.3	1082.8	1112.0	1123.2
42.5°	999.7	1013.1	1040.1	1078.3	1091.8
45°	950.2	966.0	999.7	1042.3	1060.3
47.5°	900.8	918.8	957.0	1006.4	1026.6
50°	844.7	867.1	914.3	970.5	992.9
52.5°	790.7	817.7	869.4	932.3	961.5
55°	734.6	761.5	828.9	894.1	925.5
57.5°	671.7	707.6	781.8	855.9	889.6
60°	613.3	647.0	736.8	817.7	851.4
62.5°	550.4	595.3	691.9	777.3	811.0
65°	485.2	534.7	644.7	730.1	763.8
67.5°	426.8	480.7	597.6	682.9	716.6
70°	357.2	424.6	545.9	631.2	664.9
72.5°	292.0	366.2	492.0	575.1	606.5
75°	229.1	312.3	435.8	509.9	525.7
77.5°	170.7	258.3	377.4	408.9	397.6
80°	121.3	206.7	294.3	278.6	285.3
82.5°	78.6	157.3	182.0	206.7	213.4
85°	44.9	92.1	112.3	121.3	125.8
87.5°	20.2	33.7	44.9	44.9	42.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)