

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: P310468

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-RDP-CP125-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: P310468
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-L82765-RDP-CP125-W2A-U-5000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB 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: 4663.0 lumens
Efficiency: N/A
Efficacy: 72.5 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

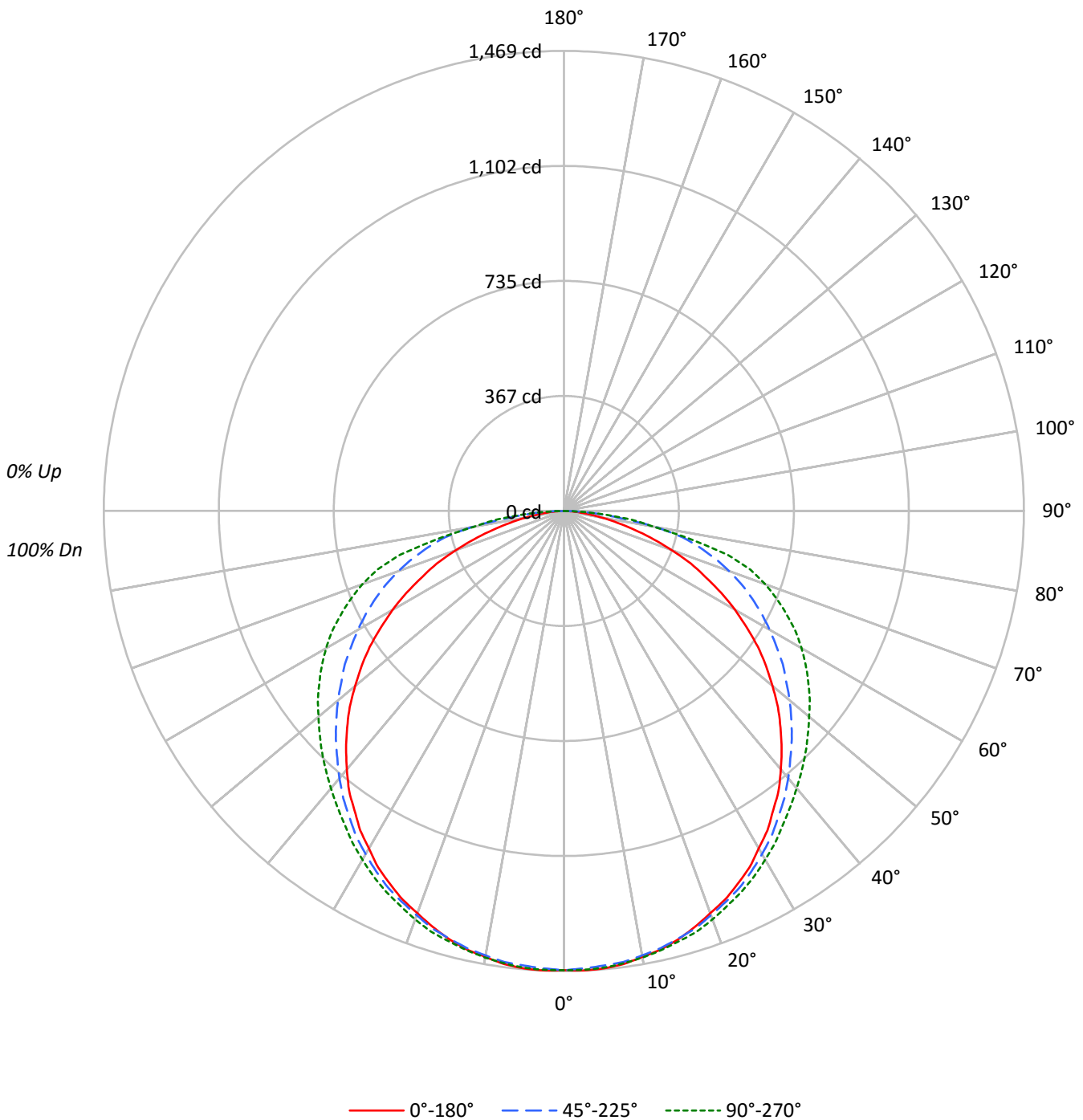
Input Watts (W): 64.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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°	1973	1973	1973
5°	1981	1968	1977
10°	1975	1969	1978
15°	1972	1969	1981
20°	1957	1967	1987
25°	1950	1971	1992
30°	1933	1966	1998
35°	1915	1960	2006
40°	1893	1958	2031
45°	1862	1958	2077
50°	1820	1971	2140
55°	1774	2002	2235
60°	1699	2041	2359
65°	1591	2113	2504
70°	1447	2211	2693
75°	1226	2333	2813
80°	968	2348	2276
85°	715	1785	1999



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.1	3.0
10°-20°	400.3	8.6
20°-30°	612.2	13.1
30°-40°	748.4	16.0
40°-50°	797.6	17.1
50°-60°	762.6	16.4
60°-70°	646.1	13.9
70°-80°	434.2	9.3
80°-90°	122.5	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°	1151.6	24.7
0°-40°	1900.0	40.7
0°-60°	3460.3	74.2
0°-90°	4663.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4663.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1466	1466	1466	1466	1466	
5°	1466	1464	1457	1464	1464	139
15°	1416	1416	1413	1425	1422	399
25°	1314	1318	1328	1339	1342	605
35°	1166	1175	1194	1217	1221	730
45°	978	994	1029	1073	1092	755
55°	756	784	854	920	953	674
65°	500	550	664	752	786	496
75°	236	322	449	525	541	253
85°	46	95	116	125	130	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1466.4	1466.4	1466.4	1466.4	1466.4
2.5°	1468.7	1468.7	1461.8	1466.4	1466.4
5°	1466.4	1464.1	1457.1	1464.1	1464.1
7.5°	1459.4	1457.1	1452.5	1459.4	1457.1
10°	1445.6	1445.6	1440.9	1447.9	1447.9
12.5°	1434.0	1431.7	1429.4	1438.6	1436.3
15°	1415.5	1415.5	1413.2	1424.7	1422.4
17.5°	1392.4	1394.7	1397.0	1406.2	1408.6
20°	1366.9	1371.6	1373.9	1387.7	1387.7
22.5°	1343.8	1346.1	1350.7	1364.6	1364.6
25°	1313.7	1318.4	1327.6	1339.2	1341.5
27.5°	1283.7	1286.0	1297.5	1313.7	1316.0
30°	1244.3	1251.3	1265.2	1283.7	1286.0
32.5°	1209.6	1216.6	1232.8	1251.3	1255.9
35°	1165.7	1175.0	1193.5	1216.6	1221.2
37.5°	1126.4	1133.3	1156.5	1181.9	1188.8
40°	1077.8	1091.7	1114.8	1144.9	1156.5
42.5°	1029.2	1043.1	1070.9	1110.2	1124.1
45°	978.4	994.5	1029.2	1073.2	1091.7
47.5°	927.5	946.0	985.3	1036.2	1057.0
50°	869.7	892.8	941.4	999.2	1022.3
52.5°	814.1	841.9	895.1	959.9	989.9
55°	756.3	784.1	853.5	920.5	952.9
57.5°	691.6	728.6	804.9	881.2	915.9
60°	631.4	666.1	758.6	841.9	876.6
62.5°	566.7	612.9	712.4	800.3	835.0
65°	499.6	550.5	663.8	751.7	786.4
67.5°	439.5	495.0	615.2	703.1	737.8
70°	367.8	437.1	562.0	649.9	684.6
72.5°	300.7	377.0	506.5	592.1	624.5
75°	235.9	321.5	448.7	525.0	541.2
77.5°	175.8	266.0	388.6	420.9	409.4
80°	124.9	212.8	303.0	286.8	293.7
82.5°	81.0	161.9	187.3	212.8	219.7
85°	46.3	94.8	115.6	124.9	129.5
87.5°	20.8	34.7	46.3	46.3	43.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)