

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: P310460

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-RDP-CA125-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: P310460
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-CA125-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" 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: 4802.0 lumens
Efficiency: N/A
Efficacy: 74.3 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

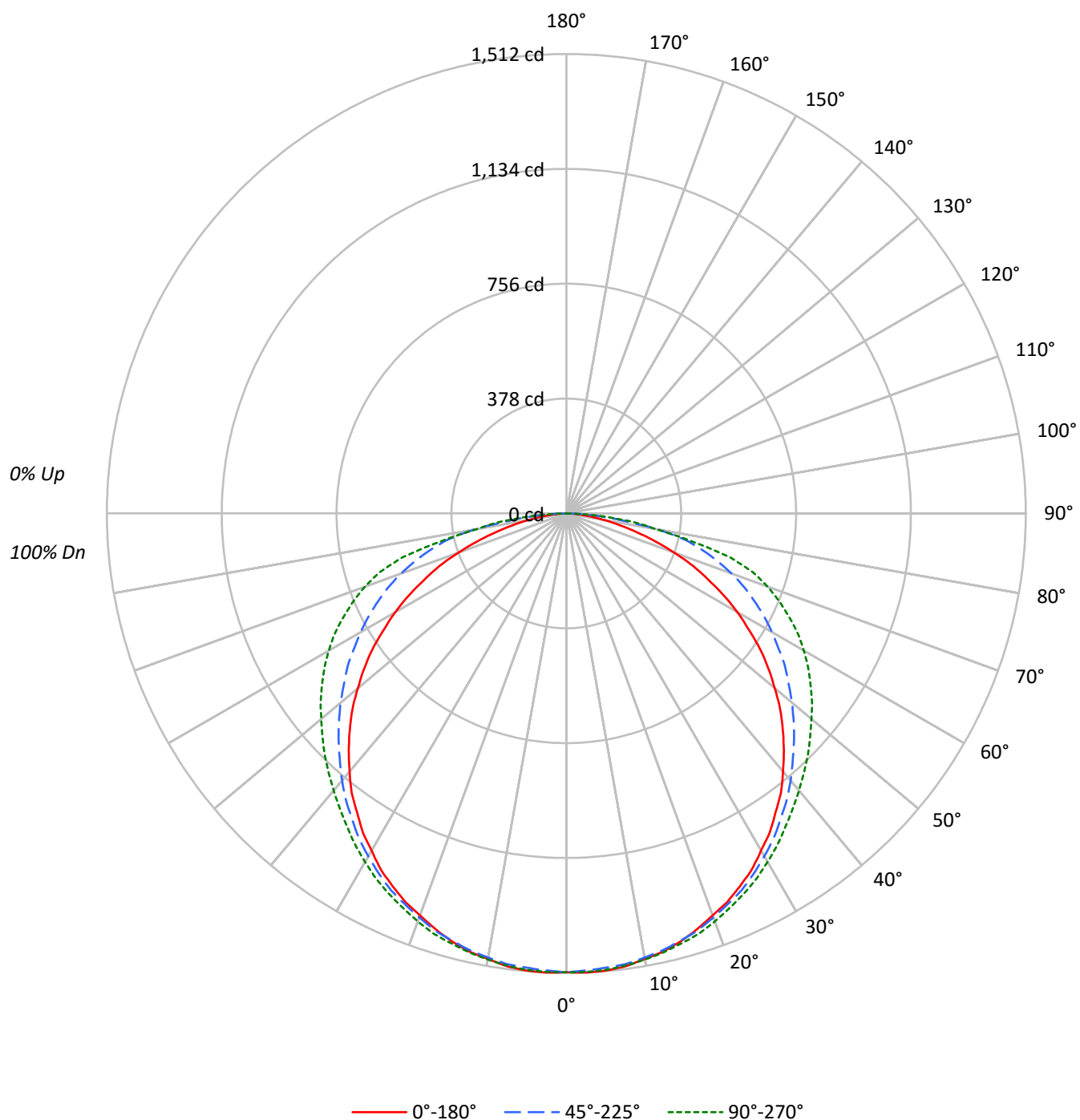
Input Watts (W): 64.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	100	96	92	96	93	89		92	89	87		82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2032	2032	2032
5°	2040	2027	2036
10°	2034	2027	2037
15°	2031	2027	2040
20°	2016	2026	2046
25°	2008	2030	2051
30°	1991	2024	2057
35°	1972	2019	2066
40°	1949	2017	2092
45°	1917	2017	2139
50°	1875	2029	2204
55°	1827	2062	2302
60°	1750	2102	2429
65°	1638	2176	2578
70°	1490	2277	2773
75°	1263	2402	2898
80°	996	2417	2344
85°	735	1839	2059



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.2	3.0
10°-20°	412.3	8.6
20°-30°	630.4	13.1
30°-40°	770.7	16.0
40°-50°	821.4	17.1
50°-60°	785.4	16.4
60°-70°	665.3	13.9
70°-80°	447.1	9.3
80°-90°	126.1	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°	1185.9	24.7
0°-40°	1956.6	40.7
0°-60°	3563.4	74.2
0°-90°	4802.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4802.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1510	1510	1510	1510	1510	
5°	1510	1508	1501	1508	1508	143
15°	1458	1458	1455	1467	1465	411
25°	1353	1358	1367	1379	1382	624
35°	1200	1210	1229	1253	1258	752
45°	1008	1024	1060	1105	1124	777
55°	779	807	879	948	981	694
65°	514	567	684	774	810	511
75°	243	331	462	541	557	260
85°	48	98	119	129	133	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1510.1	1510.1	1510.1	1510.1	1510.1
2.5°	1512.5	1512.5	1505.3	1510.1	1510.1
5°	1510.1	1507.7	1500.6	1507.7	1507.7
7.5°	1502.9	1500.6	1495.8	1502.9	1500.6
10°	1488.7	1488.7	1483.9	1491.0	1491.0
12.5°	1476.7	1474.4	1472.0	1481.5	1479.1
15°	1457.7	1457.7	1455.3	1467.2	1464.8
17.5°	1433.9	1436.3	1438.6	1448.2	1450.5
20°	1407.7	1412.4	1414.8	1429.1	1429.1
22.5°	1383.9	1386.2	1391.0	1405.3	1405.3
25°	1352.9	1357.7	1367.2	1379.1	1381.5
27.5°	1321.9	1324.3	1336.2	1352.9	1355.3
30°	1281.4	1288.6	1302.9	1321.9	1324.3
32.5°	1245.7	1252.9	1269.5	1288.6	1293.3
35°	1200.5	1210.0	1229.0	1252.9	1257.6
37.5°	1160.0	1167.1	1190.9	1217.1	1224.3
40°	1109.9	1124.2	1148.1	1179.0	1190.9
42.5°	1059.9	1074.2	1102.8	1143.3	1157.6
45°	1007.5	1024.2	1059.9	1105.2	1124.2
47.5°	955.1	974.2	1014.7	1067.1	1088.5
50°	895.6	919.4	969.4	1029.0	1052.8
52.5°	838.4	867.0	921.8	988.5	1019.4
55°	778.9	807.4	878.9	948.0	981.3
57.5°	712.2	750.3	828.9	907.5	943.2
60°	650.2	686.0	781.2	867.0	902.7
62.5°	583.6	631.2	733.6	824.1	859.8
65°	514.5	566.9	683.6	774.1	809.8
67.5°	452.6	509.7	633.6	724.1	759.8
70°	378.7	450.2	578.8	669.3	705.0
72.5°	309.6	388.2	521.6	609.8	643.1
75°	242.9	331.1	462.1	540.7	557.4
77.5°	181.0	273.9	400.2	433.5	421.6
80°	128.6	219.1	312.0	295.3	302.5
82.5°	83.4	166.7	192.9	219.1	226.3
85°	47.6	97.7	119.1	128.6	133.4
87.5°	21.4	35.7	47.6	47.6	45.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)