

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: P311657

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-S-CP250-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: P311657
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-55HE-UNV-L82765-S-CP250-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.250" POLYCARB 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: 5145.0 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

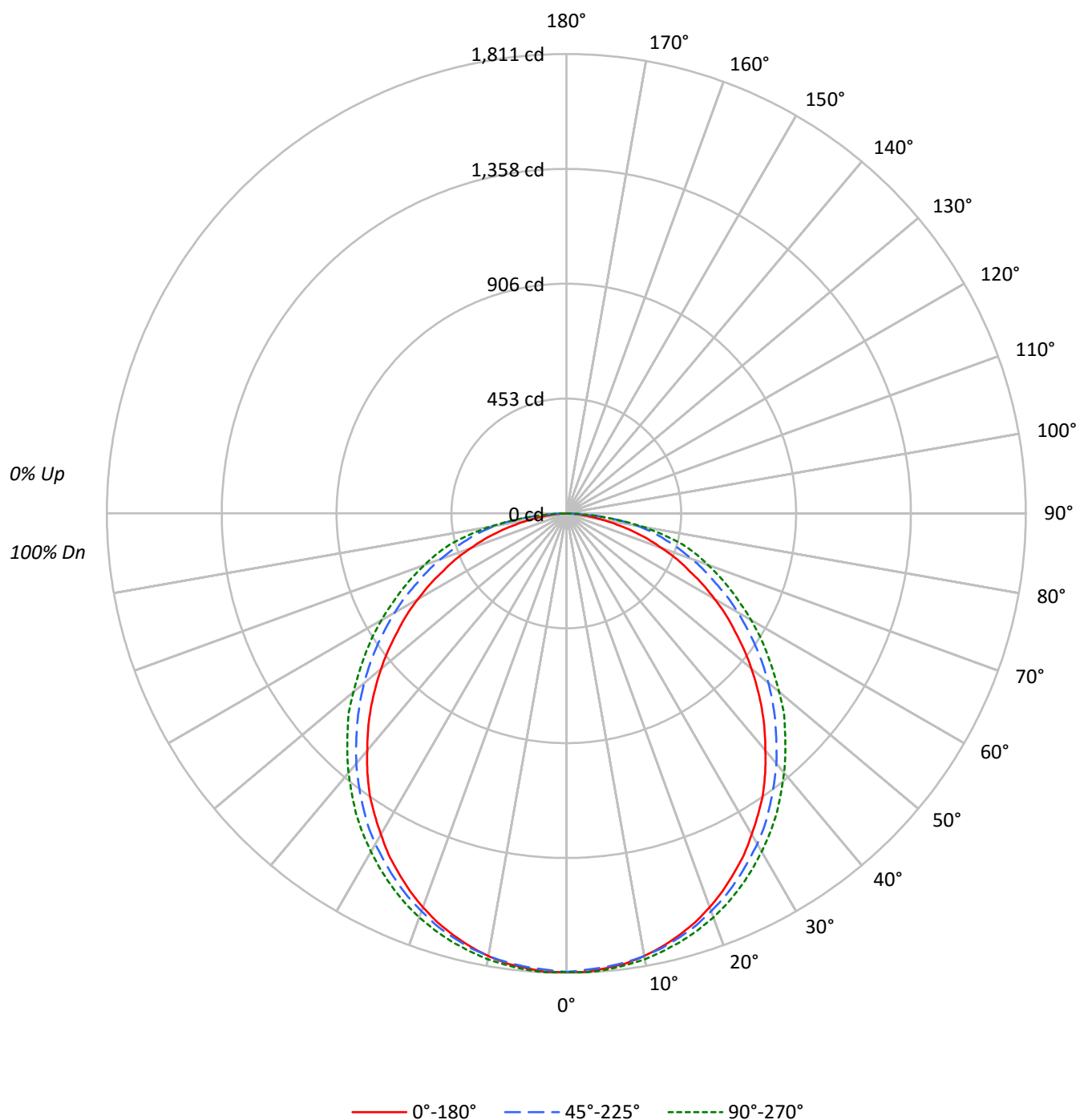
Input Watts (W): 44.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90		93	90	88		83
2	98	90	83	77	96	88	81	76	84	79	74		81	76	72		69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		63	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	70	56	47	40	68	55	47	40	53	46	40		52	45	40		37
7	64	51	42	36	63	50	42	36	48	41	35		47	40	35		33
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2432	2432	2432
5°	2430	2424	2439
10°	2420	2420	2438
15°	2397	2408	2433
20°	2366	2389	2427
25°	2322	2366	2412
30°	2270	2338	2392
35°	2220	2300	2373
40°	2144	2262	2345
45°	2074	2217	2320
50°	1994	2176	2292
55°	1905	2135	2270
60°	1816	2102	2265
65°	1701	2066	2279
70°	1575	2077	2340
75°	1410	2115	2472
80°	1140	2242	2418
85°	858	1968	1917



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.1	3.3
10°-20°	488.9	9.5
20°-30°	735.0	14.3
30°-40°	875.5	17.0
40°-50°	896.0	17.4
50°-60°	806.7	15.7
60°-70°	633.5	12.3
70°-80°	411.2	8.0
80°-90°	127.2	2.5
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°	1395.0	27.1
0°-40°	2270.5	44.1
0°-60°	3973.2	77.2
0°-90°	5145.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5145.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1808	1808	1808	1808	1808	
5°	1799	1803	1794	1804	1806	171
15°	1721	1726	1729	1744	1747	485
25°	1564	1577	1593	1620	1624	720
35°	1352	1368	1400	1435	1445	843
45°	1090	1116	1165	1209	1219	840
55°	812	848	910	958	968	728
65°	534	575	649	703	716	532
75°	271	324	407	462	476	287
85°	56	103	128	124	124	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1807.5	1807.5	1807.5	1807.5	1807.5
2.5°	1809.1	1809.1	1800.9	1809.1	1810.7
5°	1799.3	1802.6	1794.4	1804.2	1805.8
7.5°	1789.5	1789.5	1784.6	1794.4	1796.0
10°	1771.5	1773.2	1771.5	1783.0	1784.6
12.5°	1748.6	1751.9	1753.5	1765.0	1766.6
15°	1720.9	1725.8	1729.0	1743.7	1747.0
17.5°	1689.8	1694.7	1702.9	1719.2	1722.5
20°	1652.2	1658.8	1668.6	1689.8	1694.7
22.5°	1611.4	1617.9	1634.2	1653.9	1662.0
25°	1564.0	1577.0	1593.4	1619.5	1624.4
27.5°	1516.6	1528.0	1549.3	1577.0	1583.6
30°	1461.0	1479.0	1505.1	1532.9	1539.5
32.5°	1407.1	1425.1	1456.1	1485.5	1493.7
35°	1351.5	1367.9	1400.5	1434.9	1444.7
37.5°	1287.8	1309.0	1345.0	1379.3	1389.1
40°	1220.8	1246.9	1287.8	1323.7	1335.2
42.5°	1157.0	1184.8	1225.7	1264.9	1278.0
45°	1090.0	1116.2	1165.2	1209.3	1219.1
47.5°	1021.4	1050.8	1103.1	1147.2	1163.6
50°	952.8	983.8	1039.4	1085.1	1094.9
52.5°	884.1	916.8	975.6	1024.7	1029.6
55°	812.2	848.2	910.3	957.7	967.5
57.5°	746.8	777.9	844.9	893.9	905.4
60°	674.9	709.3	781.2	826.9	841.6
62.5°	606.3	642.3	717.4	763.2	776.3
65°	534.4	575.3	648.8	702.7	715.8
67.5°	472.3	511.5	590.0	642.3	655.3
70°	400.4	444.5	527.9	581.8	594.9
72.5°	338.3	384.0	467.4	519.7	539.3
75°	271.3	323.6	406.9	462.5	475.6
77.5°	205.9	266.4	351.4	393.9	393.9
80°	147.1	210.8	289.3	308.9	312.1
82.5°	96.4	158.5	214.1	212.5	212.5
85°	55.6	103.0	127.5	124.2	124.2
87.5°	21.2	42.5	45.8	45.8	44.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)