

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: P311637

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-S-CP125-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: P311637
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-CP125-W2A-U-4500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB 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: 5292.0 lumens
Efficiency: N/A
Efficacy: 120.5 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

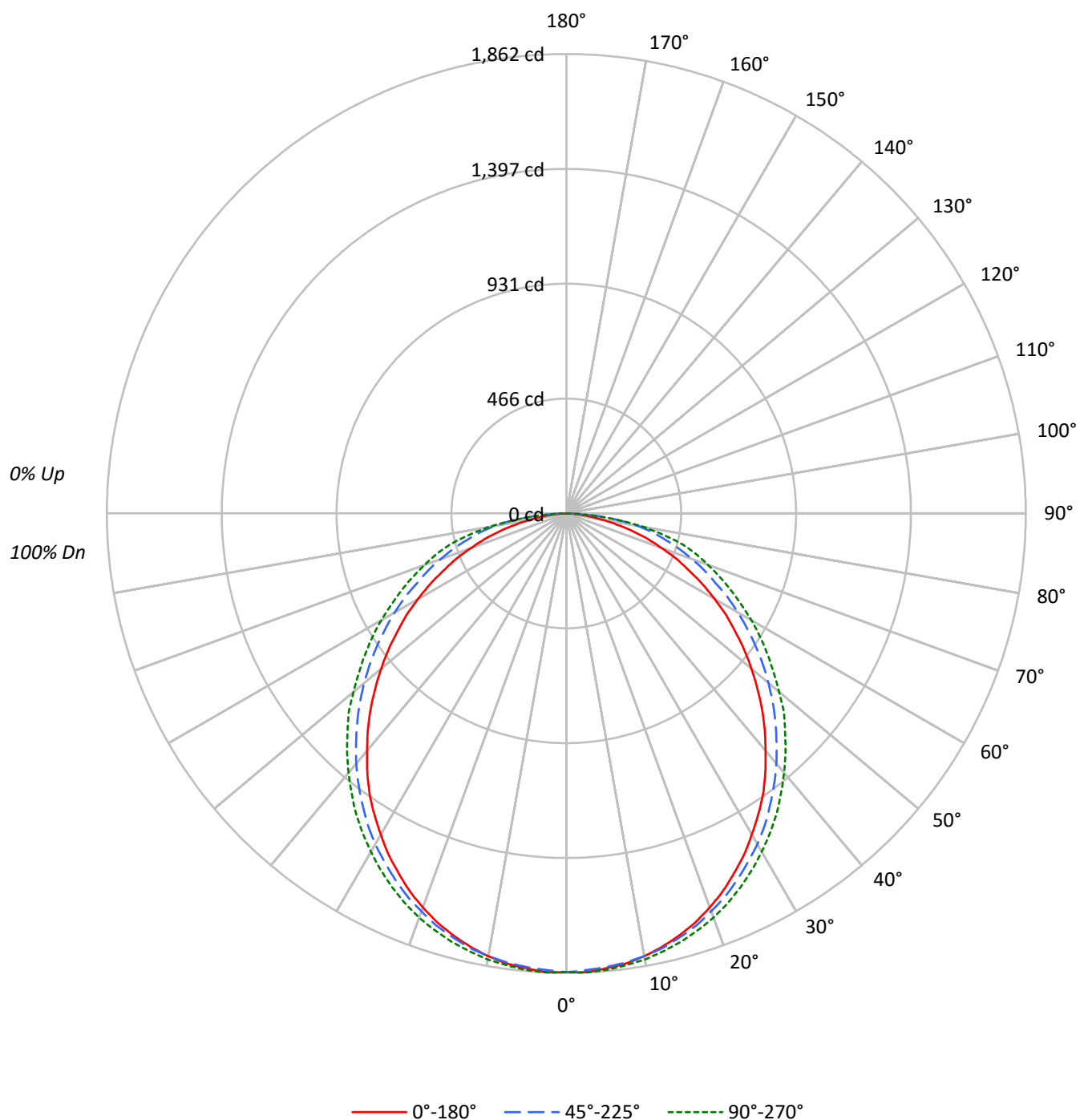
Input Watts (W): 43.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2501	2501	2501
5°	2500	2493	2509
10°	2489	2489	2508
15°	2466	2477	2503
20°	2433	2457	2496
25°	2388	2433	2480
30°	2335	2405	2460
35°	2283	2366	2441
40°	2206	2327	2412
45°	2133	2281	2386
50°	2051	2238	2357
55°	1960	2196	2334
60°	1868	2162	2330
65°	1750	2124	2344
70°	1620	2136	2407
75°	1450	2176	2543
80°	1172	2305	2488
85°	883	2024	1973



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.0	3.3
10°-20°	502.9	9.5
20°-30°	756.0	14.3
30°-40°	900.5	17.0
40°-50°	921.6	17.4
50°-60°	829.7	15.7
60°-70°	651.6	12.3
70°-80°	422.9	8.0
80°-90°	130.8	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°	1434.9	27.1
0°-40°	2335.4	44.1
0°-60°	4086.7	77.2
0°-90°	5292.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5292.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1859	1859	1859	1859	1859	
5°	1851	1854	1846	1856	1857	176
15°	1770	1775	1778	1794	1797	499
25°	1609	1622	1639	1666	1671	741
35°	1390	1407	1441	1476	1486	867
45°	1121	1148	1198	1244	1254	864
55°	835	872	936	985	995	749
65°	550	592	667	723	736	547
75°	279	333	419	476	489	295
85°	57	106	131	128	128	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1859.1	1859.1	1859.1	1859.1	1859.1
2.5°	1860.8	1860.8	1852.4	1860.8	1862.5
5°	1850.7	1854.1	1845.7	1855.8	1857.4
7.5°	1840.6	1840.6	1835.6	1845.7	1847.3
10°	1822.1	1823.8	1822.1	1833.9	1835.6
12.5°	1798.6	1802.0	1803.6	1815.4	1817.1
15°	1770.0	1775.1	1778.4	1793.6	1796.9
17.5°	1738.1	1743.1	1751.5	1768.3	1771.7
20°	1699.4	1706.1	1716.2	1738.1	1743.1
22.5°	1657.4	1664.1	1680.9	1701.1	1709.5
25°	1608.7	1622.1	1638.9	1665.8	1670.8
27.5°	1559.9	1571.7	1593.5	1622.1	1628.8
30°	1502.8	1521.2	1548.1	1576.7	1583.4
32.5°	1447.3	1465.8	1497.7	1528.0	1536.4
35°	1390.1	1406.9	1440.6	1475.9	1485.9
37.5°	1324.6	1346.4	1383.4	1418.7	1428.8
40°	1255.7	1282.6	1324.6	1361.6	1373.3
42.5°	1190.1	1218.7	1260.7	1301.0	1314.5
45°	1121.2	1148.1	1198.5	1243.9	1254.0
47.5°	1050.6	1080.8	1134.6	1180.0	1196.8
50°	980.0	1011.9	1069.1	1116.1	1126.2
52.5°	909.4	943.0	1003.5	1053.9	1059.0
55°	835.4	872.4	936.3	985.0	995.1
57.5°	768.2	800.1	869.0	919.5	931.2
60°	694.2	729.5	803.5	850.6	865.7
62.5°	623.6	660.6	737.9	785.0	798.4
65°	549.7	591.7	667.3	722.8	736.2
67.5°	485.8	526.1	606.8	660.6	674.1
70°	411.8	457.2	542.9	598.4	611.9
72.5°	348.0	395.0	480.7	534.5	554.7
75°	279.0	332.8	418.6	475.7	489.2
77.5°	211.8	274.0	361.4	405.1	405.1
80°	151.3	216.8	297.5	317.7	321.1
82.5°	99.2	163.1	220.2	218.5	218.5
85°	57.2	105.9	131.1	127.8	127.8
87.5°	21.9	43.7	47.1	47.1	45.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)