

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: P310955

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-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: P310955
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
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-CA125-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 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: 5257.0 lumens
Efficiency: N/A
Efficacy: 118.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

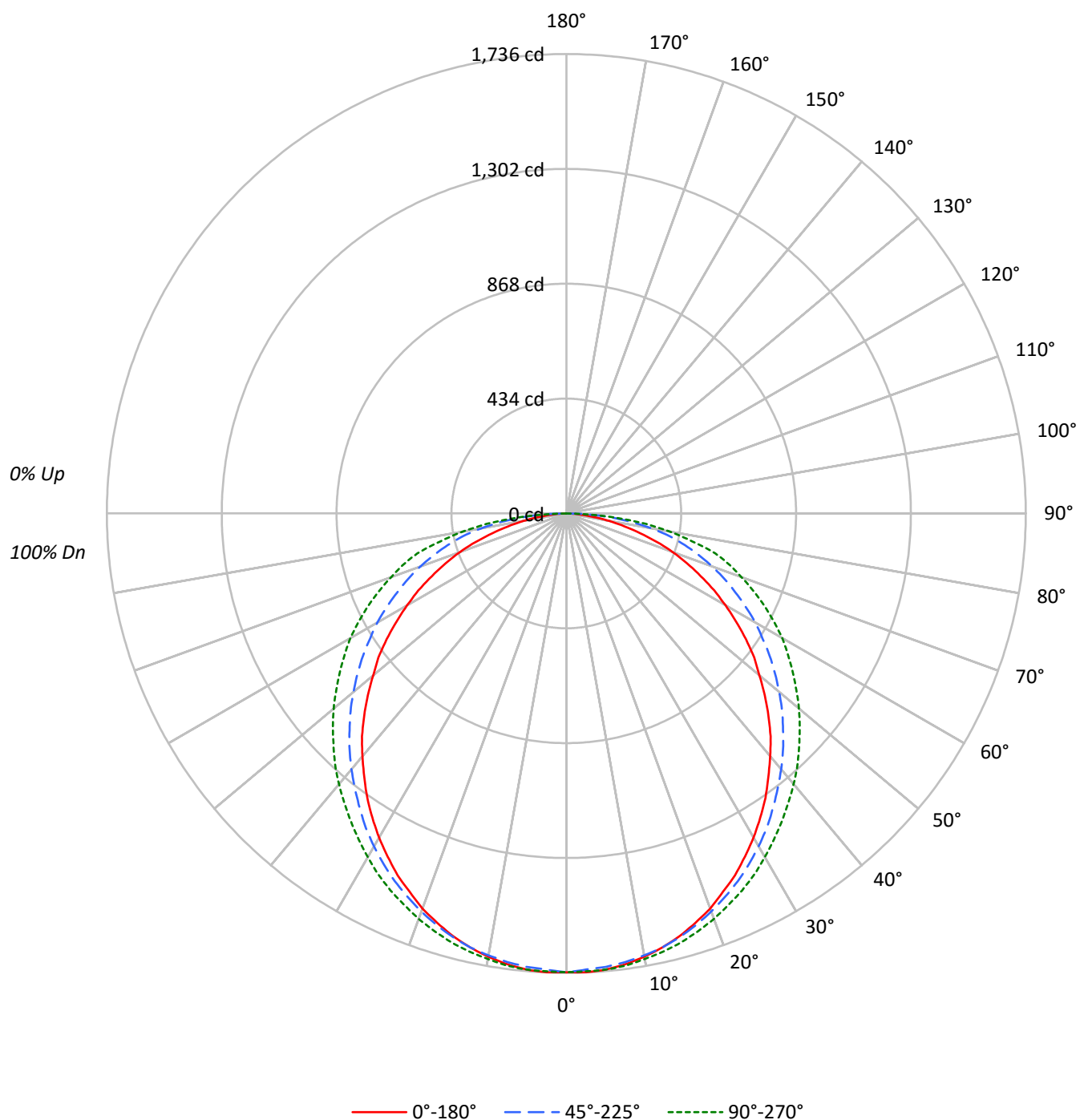
Input Watts (W): 44.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	92	89		92	89	87		82
2	98	89	81	75	95	87	80	74	83	78	73		80	75	71		67
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		56
4	81	68	59	52	79	67	58	52	64	57	51		62	56	50		47
5	74	61	52	45	72	60	51	44	58	50	44		56	49	43		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	64	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	37	31	57	45	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2333	2333	2333
5°	2337	2323	2337
10°	2323	2316	2335
15°	2303	2308	2337
20°	2275	2293	2335
25°	2240	2276	2333
30°	2198	2257	2330
35°	2154	2235	2332
40°	2105	2218	2347
45°	2054	2204	2366
50°	1993	2198	2402
55°	1943	2201	2451
60°	1868	2220	2535
65°	1783	2243	2627
70°	1688	2312	2772
75°	1505	2412	3029
80°	1284	2554	3095
85°	915	2532	2963



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.1	3.1
10°-20°	469.2	8.9
20°-30°	708.6	13.5
30°-40°	854.0	16.2
40°-50°	896.6	17.1
50°-60°	838.8	16.0
60°-70°	692.7	13.2
70°-80°	472.0	9.0
80°-90°	161.0	3.1
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°	1341.8	25.5
0°-40°	2195.9	41.8
0°-60°	3931.3	74.8
0°-90°	5257.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5257.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1734	1734	1734	1734	1734	
5°	1730	1728	1720	1730	1730	164
15°	1654	1655	1657	1674	1678	466
25°	1509	1516	1533	1563	1572	694
35°	1312	1326	1360	1406	1420	820
45°	1080	1102	1158	1221	1244	833
55°	828	862	938	1015	1045	739
65°	560	607	705	794	825	555
75°	290	356	464	551	583	309
85°	59	117	164	185	192	74
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1733.7	1733.7	1733.7	1733.7	1733.7
2.5°	1735.5	1733.7	1725.0	1733.7	1732.0
5°	1730.2	1728.5	1719.8	1730.2	1730.2
7.5°	1718.0	1718.0	1709.3	1721.5	1723.2
10°	1700.6	1700.6	1695.3	1709.3	1709.3
12.5°	1679.6	1679.6	1679.6	1693.6	1695.3
15°	1653.5	1655.2	1657.0	1674.4	1677.9
17.5°	1622.1	1625.6	1630.8	1651.7	1655.2
20°	1588.9	1592.4	1601.2	1625.6	1630.8
22.5°	1547.1	1555.8	1568.0	1595.9	1601.2
25°	1508.7	1515.7	1533.1	1562.8	1571.5
27.5°	1461.6	1472.1	1494.8	1526.2	1538.4
30°	1414.5	1425.0	1452.9	1489.5	1500.0
32.5°	1363.9	1379.6	1409.3	1447.7	1459.9
35°	1311.6	1325.6	1360.5	1405.8	1419.8
37.5°	1254.1	1273.2	1311.6	1360.5	1377.9
40°	1198.3	1219.2	1262.8	1315.1	1336.0
42.5°	1142.4	1163.4	1212.2	1271.5	1292.4
45°	1079.6	1102.3	1158.1	1220.9	1243.6
47.5°	1016.9	1044.8	1105.8	1172.1	1196.5
50°	952.3	983.7	1050.0	1119.8	1147.7
52.5°	894.8	924.4	994.2	1069.2	1095.3
55°	828.5	861.6	938.4	1015.1	1044.8
57.5°	760.5	797.1	879.1	962.8	992.4
60°	694.2	734.3	825.0	908.7	941.9
62.5°	629.6	669.8	763.9	851.2	884.3
65°	559.9	607.0	704.6	793.6	825.0
67.5°	493.6	544.2	647.1	734.3	765.7
70°	429.1	477.9	587.8	673.3	704.6
72.5°	359.3	415.1	525.0	614.0	647.1
75°	289.5	355.8	464.0	551.2	582.6
77.5°	225.0	293.0	401.2	472.7	488.4
80°	165.7	235.5	329.6	380.2	399.4
82.5°	106.4	176.2	251.2	287.8	303.5
85°	59.3	116.9	164.0	184.9	191.9
87.5°	24.4	50.6	66.3	75.0	75.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)