

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: P310273

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-RDP-CA08-W2A-U-6500K**

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: P310273
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: 24FCZ2-55HE-UNV-L82765-RDP-CA08-W2A-U-6500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET
Light Source: (336) 6500K 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: 3567.0 lumens
Efficiency: N/A
Efficacy: 79.3 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

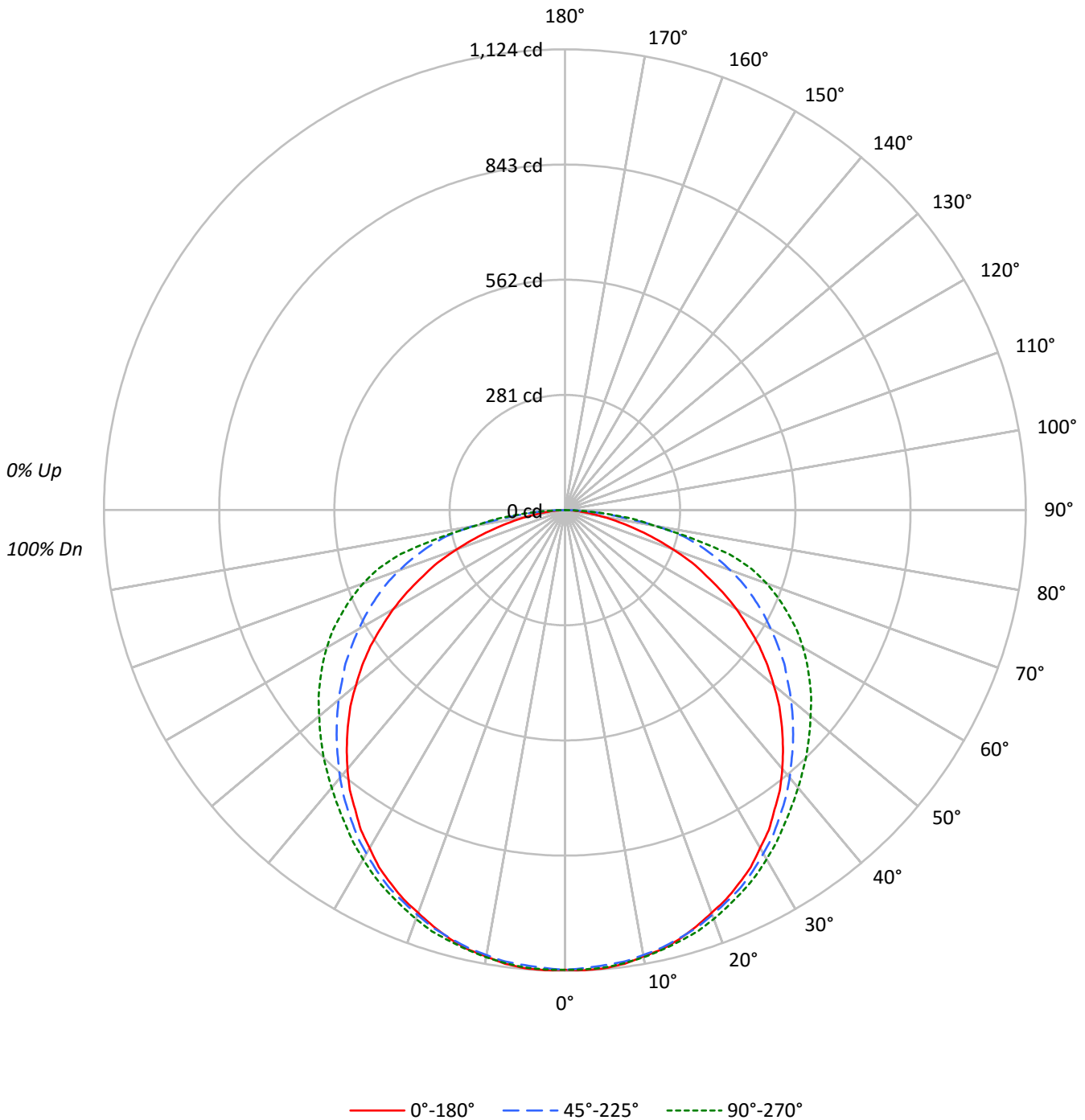
Input Watts (W): 45
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1509	1509	1509
5°	1515	1505	1513
10°	1511	1506	1513
15°	1508	1506	1516
20°	1497	1505	1520
25°	1492	1508	1523
30°	1479	1504	1528
35°	1465	1499	1534
40°	1448	1498	1554
45°	1424	1498	1589
50°	1392	1507	1637
55°	1357	1532	1710
60°	1300	1562	1805
65°	1217	1617	1915
70°	1107	1691	2060
75°	938	1784	2152
80°	740	1796	1741
85°	546	1366	1530



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.4	3.0
10°-20°	306.2	8.6
20°-30°	468.3	13.1
30°-40°	572.5	16.0
40°-50°	610.1	17.1
50°-60°	583.4	16.4
60°-70°	494.2	13.9
70°-80°	332.1	9.3
80°-90°	93.7	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°	880.9	24.7
0°-40°	1453.4	40.7
0°-60°	2646.9	74.2
0°-90°	3567.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3567.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1122	1122	1122	1122	1122	
5°	1122	1120	1115	1120	1120	107
15°	1083	1083	1081	1090	1088	305
25°	1005	1008	1016	1024	1026	463
35°	892	899	913	931	934	559
45°	748	761	787	821	835	577
55°	579	600	653	704	729	515
65°	382	421	508	575	602	379
75°	180	246	343	402	414	193
85°	35	72	88	96	99	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1121.7	1121.7	1121.7	1121.7	1121.7
2.5°	1123.5	1123.5	1118.2	1121.7	1121.7
5°	1121.7	1120.0	1114.6	1120.0	1120.0
7.5°	1116.4	1114.6	1111.1	1116.4	1114.6
10°	1105.8	1105.8	1102.3	1107.6	1107.6
12.5°	1096.9	1095.2	1093.4	1100.5	1098.7
15°	1082.8	1082.8	1081.0	1089.9	1088.1
17.5°	1065.1	1066.9	1068.6	1075.7	1077.5
20°	1045.6	1049.2	1050.9	1061.6	1061.6
22.5°	1027.9	1029.7	1033.3	1043.9	1043.9
25°	1004.9	1008.5	1015.6	1024.4	1026.2
27.5°	981.9	983.7	992.6	1004.9	1006.7
30°	951.9	957.2	967.8	981.9	983.7
32.5°	925.3	930.6	943.0	957.2	960.7
35°	891.7	898.8	912.9	930.6	934.2
37.5°	861.6	866.9	884.6	904.1	909.4
40°	824.5	835.1	852.8	875.8	884.6
42.5°	787.3	797.9	819.2	849.3	859.9
45°	748.4	760.8	787.3	820.9	835.1
47.5°	709.5	723.6	753.7	792.6	808.6
50°	665.2	682.9	720.1	764.3	782.0
52.5°	622.8	644.0	684.7	734.2	757.2
55°	578.6	599.8	652.9	704.2	728.9
57.5°	529.0	557.3	615.7	674.1	700.6
60°	483.0	509.6	580.3	644.0	670.6
62.5°	433.5	468.9	544.9	612.2	638.7
65°	382.2	421.1	507.8	575.0	601.6
67.5°	336.2	378.6	470.6	537.9	564.4
70°	281.3	334.4	429.9	497.2	523.7
72.5°	230.0	288.4	387.5	452.9	477.7
75°	180.5	245.9	343.2	401.6	414.0
77.5°	134.5	203.5	297.2	322.0	313.2
80°	95.5	162.8	231.8	219.4	224.7
82.5°	61.9	123.8	143.3	162.8	168.1
85°	35.4	72.5	88.5	95.5	99.1
87.5°	15.9	26.5	35.4	35.4	33.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)