

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: P310270

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-RDP-CA08-W2A-U-5000K**

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: P310270
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-5000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET
Light Source: (336) 5000K 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: 3514.0 lumens
Efficiency: N/A
Efficacy: 79.7 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

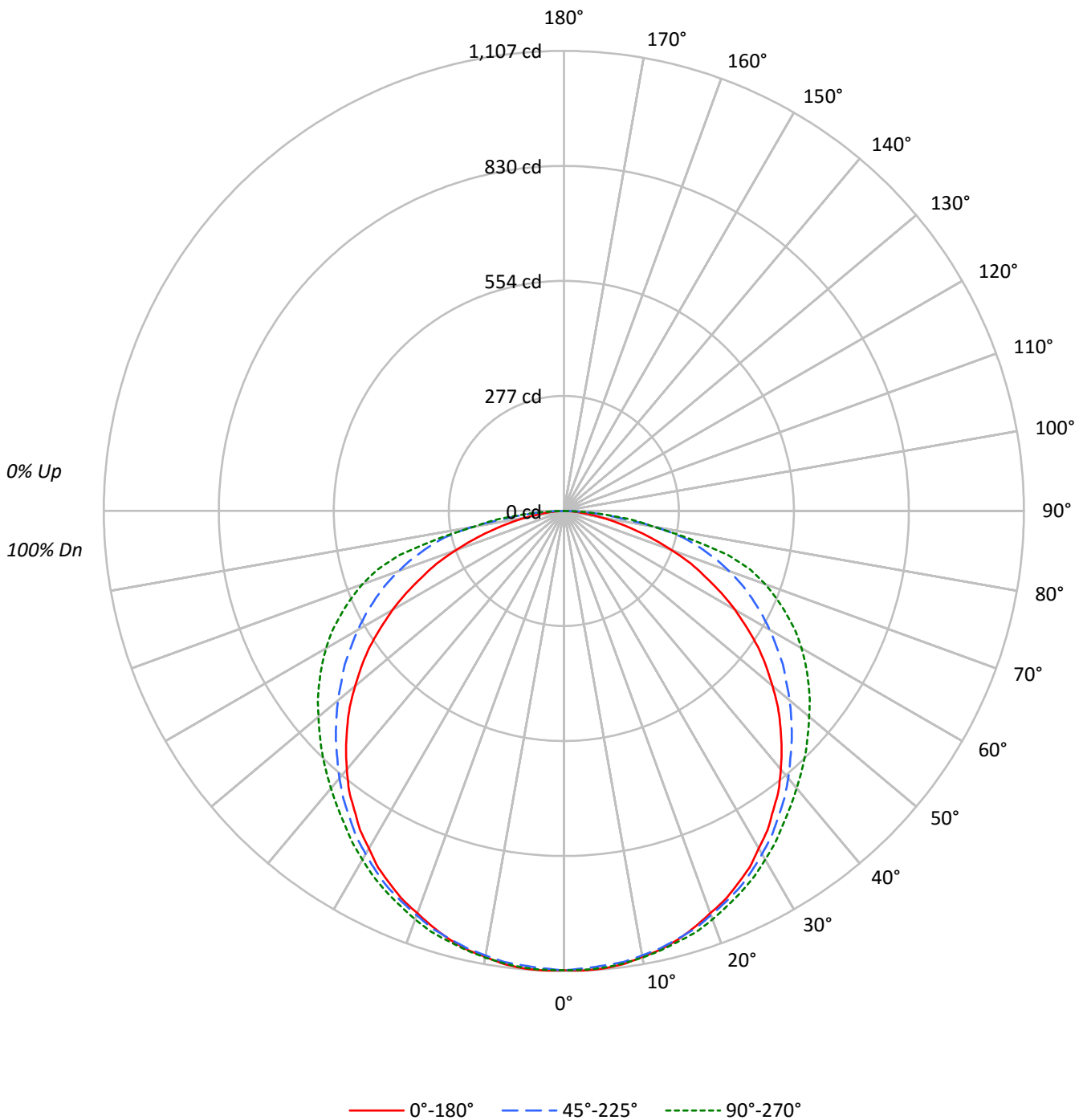
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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°	1487	1487	1487
5°	1493	1483	1490
10°	1488	1484	1491
15°	1486	1483	1493
20°	1475	1482	1497
25°	1470	1485	1501
30°	1457	1481	1506
35°	1443	1477	1512
40°	1427	1476	1531
45°	1403	1476	1565
50°	1372	1485	1613
55°	1337	1509	1685
60°	1280	1538	1778
65°	1199	1592	1887
70°	1090	1666	2030
75°	924	1758	2120
80°	729	1769	1715
85°	539	1345	1507



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.8	3.0
10°-20°	301.7	8.6
20°-30°	461.3	13.1
30°-40°	564.0	16.0
40°-50°	601.1	17.1
50°-60°	574.7	16.4
60°-70°	486.9	13.9
70°-80°	327.2	9.3
80°-90°	92.3	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°	867.9	24.7
0°-40°	1431.8	40.7
0°-60°	2607.6	74.2
0°-90°	3514.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3514.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1105	1105	1105	1105	1105	
5°	1105	1103	1098	1103	1103	105
15°	1067	1067	1065	1074	1072	301
25°	990	994	1000	1009	1011	456
35°	878	885	899	917	920	550
45°	737	750	776	809	823	569
55°	570	591	643	694	718	508
65°	376	415	500	566	593	374
75°	178	242	338	396	408	190
85°	35	72	87	94	98	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1105.1	1105.1	1105.1	1105.1	1105.1
2.5°	1106.8	1106.8	1101.6	1105.1	1105.1
5°	1105.1	1103.3	1098.1	1103.3	1103.3
7.5°	1099.8	1098.1	1094.6	1099.8	1098.1
10°	1089.4	1089.4	1085.9	1091.1	1091.1
12.5°	1080.7	1078.9	1077.2	1084.1	1082.4
15°	1066.7	1066.7	1065.0	1073.7	1071.9
17.5°	1049.3	1051.0	1052.8	1059.7	1061.5
20°	1030.1	1033.6	1035.3	1045.8	1045.8
22.5°	1012.7	1014.4	1017.9	1028.4	1028.4
25°	990.0	993.5	1000.5	1009.2	1010.9
27.5°	967.4	969.1	977.8	990.0	991.8
30°	937.7	943.0	953.4	967.4	969.1
32.5°	911.6	916.8	929.0	943.0	946.4
35°	878.5	885.4	899.4	916.8	920.3
37.5°	848.8	854.1	871.5	890.7	895.9
40°	812.2	822.7	840.1	862.8	871.5
42.5°	775.6	786.1	807.0	836.6	847.1
45°	737.3	749.5	775.6	808.7	822.7
47.5°	698.9	712.9	742.5	780.9	796.5
50°	655.4	672.8	709.4	753.0	770.4
52.5°	613.5	634.4	674.5	723.3	746.0
55°	570.0	590.9	643.2	693.7	718.1
57.5°	521.2	549.0	606.6	664.1	690.2
60°	475.8	502.0	571.7	634.4	660.6
62.5°	427.0	461.9	536.8	603.1	629.2
65°	376.5	414.8	500.2	566.5	592.6
67.5°	331.2	373.0	463.6	529.9	556.0
70°	277.1	329.4	423.5	489.8	515.9
72.5°	226.6	284.1	381.7	446.2	470.6
75°	177.8	242.3	338.1	395.7	407.9
77.5°	132.5	200.4	292.8	317.2	308.5
80°	94.1	160.4	228.3	216.1	221.4
82.5°	61.0	122.0	141.2	160.4	165.6
85°	34.9	71.5	87.1	94.1	97.6
87.5°	15.7	26.1	34.9	34.9	33.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)