

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: P310272

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-RDP-CA08-W2A-U-5700K**

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: P310272
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-5700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET
Light Source: (336) 5700K 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: 3558.0 lumens
Efficiency: N/A
Efficacy: 80.3 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

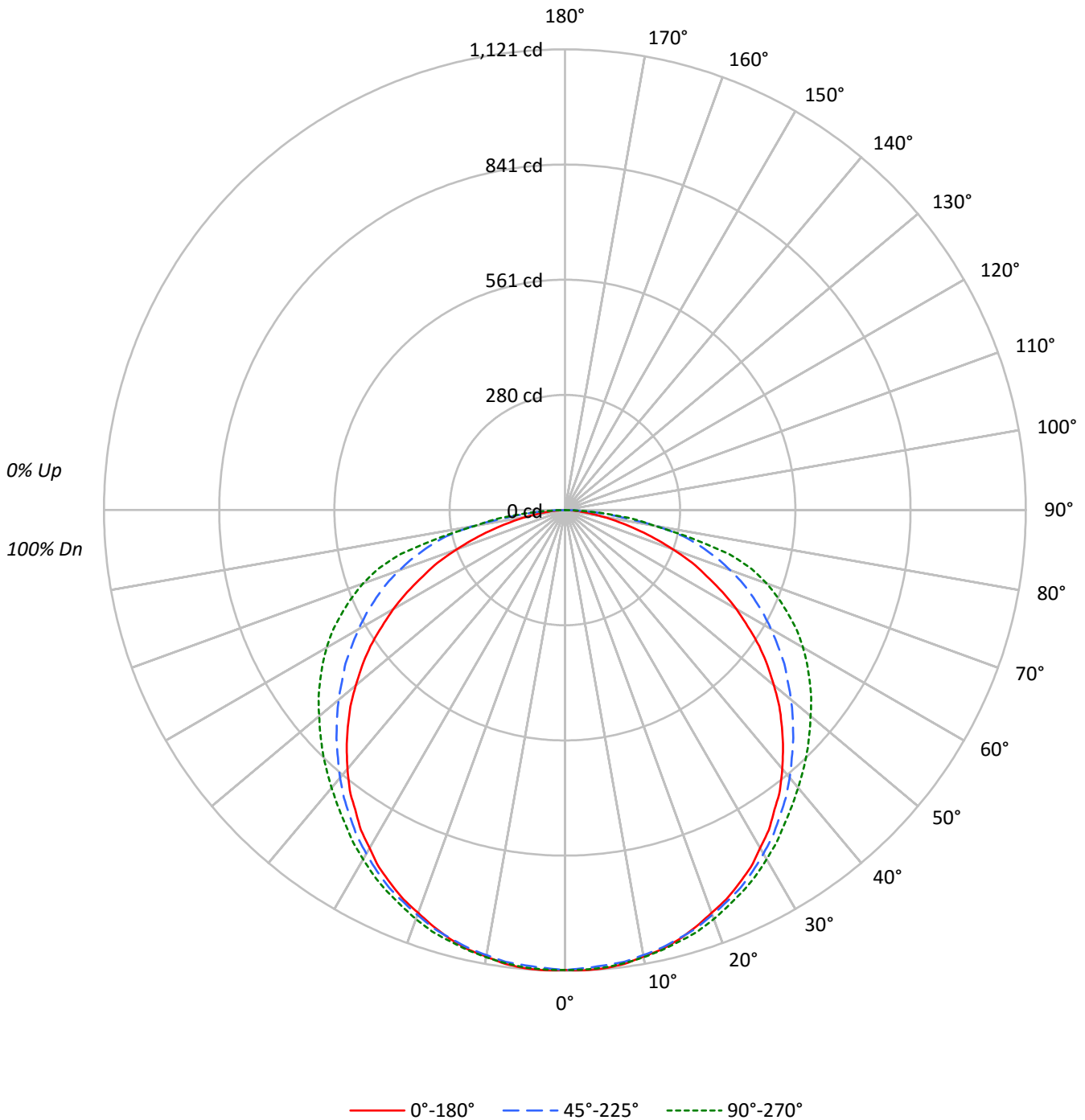
Input Watts (W): 44.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P310272

CATALOG NUMBER: 24FCZ2-55HE-UNV-L82765-RDP-CA08-W2A-U-5700K

Luminous Intensity Polar Plot





TEST NUMBER: P310272

CATALOG NUMBER: 24FCZ2-55HE-UNV-L82765-RDP-CA08-W2A-U-5700K

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°	1505	1505	1505
5°	1511	1502	1509
10°	1507	1502	1509
15°	1505	1502	1512
20°	1493	1501	1516
25°	1488	1504	1520
30°	1475	1500	1524
35°	1461	1496	1531
40°	1444	1494	1550
45°	1420	1494	1585
50°	1389	1504	1633
55°	1354	1528	1706
60°	1297	1558	1800
65°	1214	1613	1910
70°	1104	1687	2055
75°	936	1780	2147
80°	738	1791	1736
85°	545	1362	1525



TEST NUMBER: P310272

CATALOG NUMBER: 24FCZ2-55HE-UNV-L82765-RDP-CA08-W2A-U-5700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.1	3.0
10°-20°	305.5	8.6
20°-30°	467.1	13.1
30°-40°	571.0	16.0
40°-50°	608.6	17.1
50°-60°	581.9	16.4
60°-70°	493.0	13.9
70°-80°	331.3	9.3
80°-90°	93.5	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°	878.7	24.7
0°-40°	1449.8	40.7
0°-60°	2640.3	74.2
0°-90°	3558.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3558.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1119	1119	1119	1119	1119	
5°	1119	1117	1112	1117	1117	106
15°	1080	1080	1078	1087	1085	305
25°	1002	1006	1013	1022	1024	462
35°	890	896	911	928	932	557
45°	746	759	785	819	833	576
55°	577	598	651	702	727	514
65°	381	420	506	574	600	378
75°	180	245	342	401	413	193
85°	35	72	88	95	99	44
90°	0	0	0	0	0	



TEST NUMBER: P310272

CATALOG NUMBER: 24FCZ2-55HE-UNV-L82765-RDP-CA08-W2A-U-5700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1118.9	1118.9	1118.9	1118.9	1118.9
2.5°	1120.7	1120.7	1115.4	1118.9	1118.9
5°	1118.9	1117.1	1111.8	1117.1	1117.1
7.5°	1113.6	1111.8	1108.3	1113.6	1111.8
10°	1103.0	1103.0	1099.5	1104.8	1104.8
12.5°	1094.2	1092.4	1090.7	1097.7	1095.9
15°	1080.1	1080.1	1078.3	1087.1	1085.4
17.5°	1062.4	1064.2	1065.9	1073.0	1074.8
20°	1043.0	1046.5	1048.3	1058.9	1058.9
22.5°	1025.4	1027.1	1030.6	1041.2	1041.2
25°	1002.4	1005.9	1013.0	1021.8	1023.6
27.5°	979.5	981.2	990.1	1002.4	1004.2
30°	949.5	954.8	965.4	979.5	981.2
32.5°	923.0	928.3	940.6	954.8	958.3
35°	889.5	896.5	910.6	928.3	931.8
37.5°	859.5	864.8	882.4	901.8	907.1
40°	822.4	833.0	850.6	873.6	882.4
42.5°	785.3	795.9	817.1	847.1	857.7
45°	746.5	758.9	785.3	818.9	833.0
47.5°	707.7	721.8	751.8	790.6	806.5
50°	663.6	681.2	718.3	762.4	780.0
52.5°	621.2	642.4	683.0	732.4	755.3
55°	577.1	598.3	651.2	702.4	727.1
57.5°	527.7	555.9	614.2	672.4	698.9
60°	481.8	508.3	578.9	642.4	668.9
62.5°	432.4	467.7	543.6	610.6	637.1
65°	381.2	420.0	506.5	573.6	600.0
67.5°	335.3	377.7	469.4	536.5	563.0
70°	280.6	333.5	428.8	495.9	522.4
72.5°	229.4	287.7	386.5	451.8	476.5
75°	180.0	245.3	342.4	400.6	413.0
77.5°	134.1	203.0	296.5	321.2	312.4
80°	95.3	162.4	231.2	218.8	224.1
82.5°	61.8	123.5	142.9	162.4	167.7
85°	35.3	72.4	88.2	95.3	98.8
87.5°	15.9	26.5	35.3	35.3	33.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)