

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: P308380

Luminaire Tested: **22FCZ2-24HE-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: P308380  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22FCZ2-24HE-UNV-L82765-RDP-CA08-W2A-U-5000K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET  
Light Source: (168) 3000K 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**

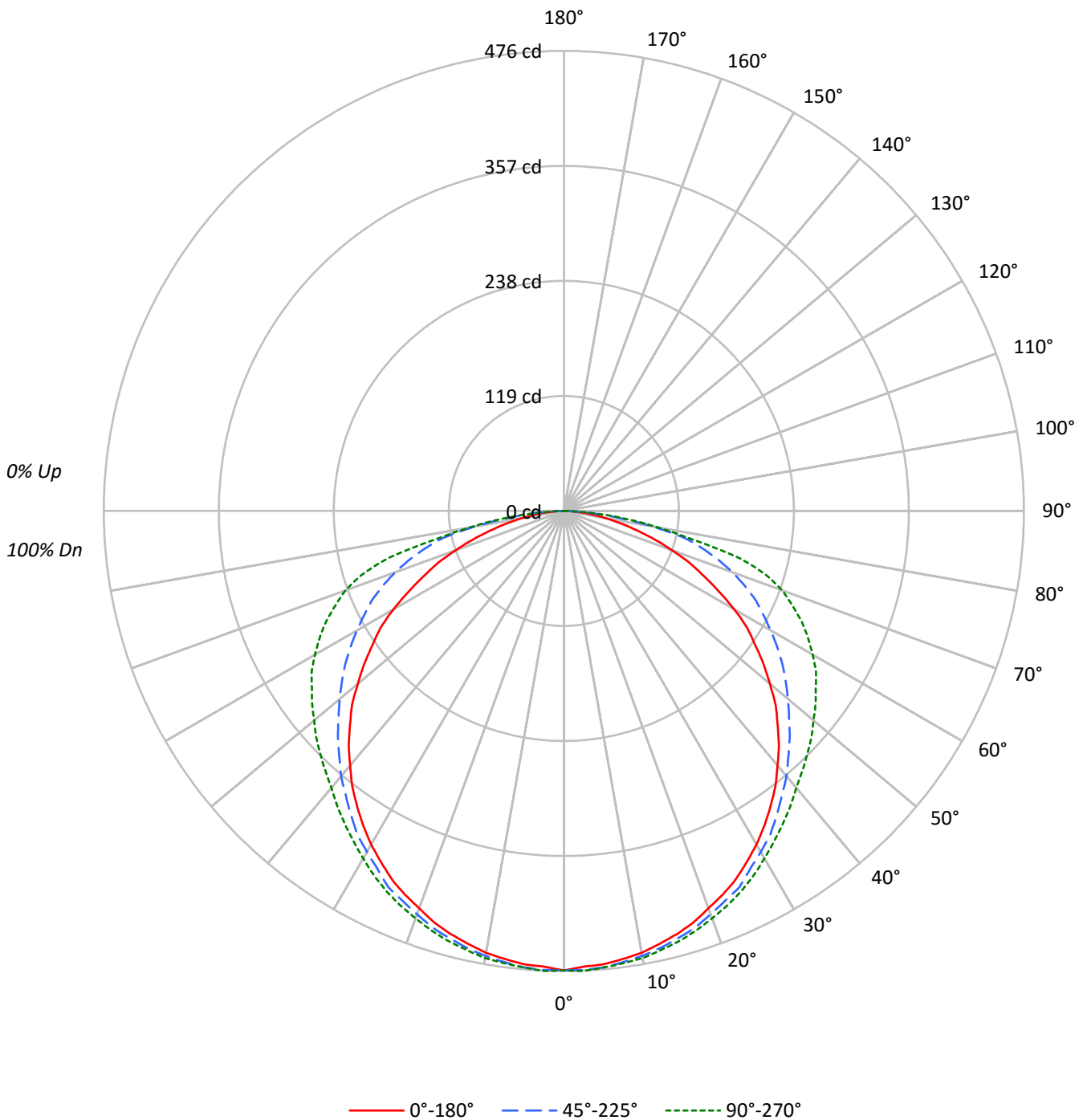
Lumens per Lamp: N/A  
Luminaire Lumens: 1513.0 lumens  
Efficiency: N/A  
Efficacy: 78.4 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P308380

CATALOG NUMBER: 22FCZ2-24HE-UNV-L82765-RDP-CA08-W2A-U-5000K

### Luminous Intensity Polar Plot





TEST NUMBER: P308380

CATALOG NUMBER: 22FCZ2-24HE-UNV-L82765-RDP-CA08-W2A-U-5000K

**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	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	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°	1279	1279	1279
5°	1272	1281	1281
10°	1268	1277	1283
15°	1262	1275	1284
20°	1253	1272	1284
25°	1249	1276	1289
30°	1238	1266	1290
35°	1225	1261	1298
40°	1208	1259	1314
45°	1190	1258	1356
50°	1165	1267	1412
55°	1133	1295	1493
60°	1096	1330	1600
65°	1021	1396	1729
70°	937	1463	1891
75°	821	1539	1956
80°	707	1466	1536
85°	618	1065	1167



TEST NUMBER: P308380

CATALOG NUMBER: 22FCZ2-24HE-UNV-L82765-RDP-CA08-W2A-U-5000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.0	3.0
10°-20°	129.1	8.5
20°-30°	196.9	13.0
30°-40°	240.5	15.9
40°-50°	257.1	17.0
50°-60°	248.2	16.4
60°-70°	213.6	14.1
70°-80°	144.5	9.6
80°-90°	38.1	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°	371.0	24.5
0°-40°	611.4	40.4
0°-60°	1116.7	73.8
0°-90°	1513.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1513.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	475	475	475	475	475	
5°	471	472	474	474	474	45
15°	453	454	458	460	461	128
25°	421	423	430	432	434	194
35°	373	376	384	392	395	233
45°	313	318	331	347	356	241
55°	242	249	276	304	318	216
65°	160	176	219	254	272	159
75°	79	105	148	178	188	85
85°	20	28	34	36	38	23
90°	0	0	0	0	0	



TEST NUMBER: P308380

CATALOG NUMBER: 22FCZ2-24HE-UNV-L82765-RDP-CA08-W2A-U-5000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	475.3	475.3	475.3	475.3	475.3
2.5°	471.9	473.0	475.3	475.3	476.4
5°	470.8	471.9	474.1	474.1	474.1
7.5°	467.5	468.6	470.8	471.9	471.9
10°	464.1	465.2	467.5	468.6	469.7
12.5°	458.6	459.7	463.0	465.2	465.2
15°	453.0	454.1	457.5	459.7	460.8
17.5°	446.3	448.5	451.9	454.1	455.2
20°	437.4	439.6	444.1	447.4	448.5
22.5°	429.6	431.9	436.3	439.6	441.9
25°	420.7	422.9	429.6	431.9	434.1
27.5°	409.6	411.8	417.4	421.8	425.2
30°	398.5	400.7	407.4	412.9	415.2
32.5°	386.2	389.6	397.3	401.8	405.1
35°	372.9	376.2	384.0	391.8	395.1
37.5°	359.5	362.8	370.6	380.7	385.1
40°	343.9	348.4	358.4	371.7	374.0
42.5°	329.5	335.0	343.9	359.5	365.1
45°	312.8	318.3	330.6	347.3	356.2
47.5°	297.2	302.7	316.1	336.1	347.3
50°	278.3	286.0	302.7	326.1	337.2
52.5°	260.4	267.1	289.4	315.0	328.3
55°	241.5	249.3	276.0	303.9	318.3
57.5°	224.8	231.5	261.6	292.7	309.4
60°	203.7	212.6	247.1	280.5	297.2
62.5°	181.4	194.8	232.6	267.1	284.9
65°	160.3	175.9	219.3	253.8	271.6
67.5°	141.4	158.0	202.6	239.3	256.0
70°	119.1	140.2	185.9	221.5	240.4
72.5°	99.1	122.4	167.0	202.6	219.3
75°	79.0	104.6	148.0	178.1	188.1
77.5°	61.2	85.7	126.9	135.8	136.9
80°	45.6	67.9	94.6	95.7	99.1
82.5°	31.2	47.9	61.2	66.8	67.9
85°	20.0	27.8	34.5	35.6	37.8
87.5°	8.9	10.0	12.2	11.1	11.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)