

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: P308688

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-CP250-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: P308688  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)  
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-CP250-W2A-U-5700K  
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.250" POLYCARB 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**

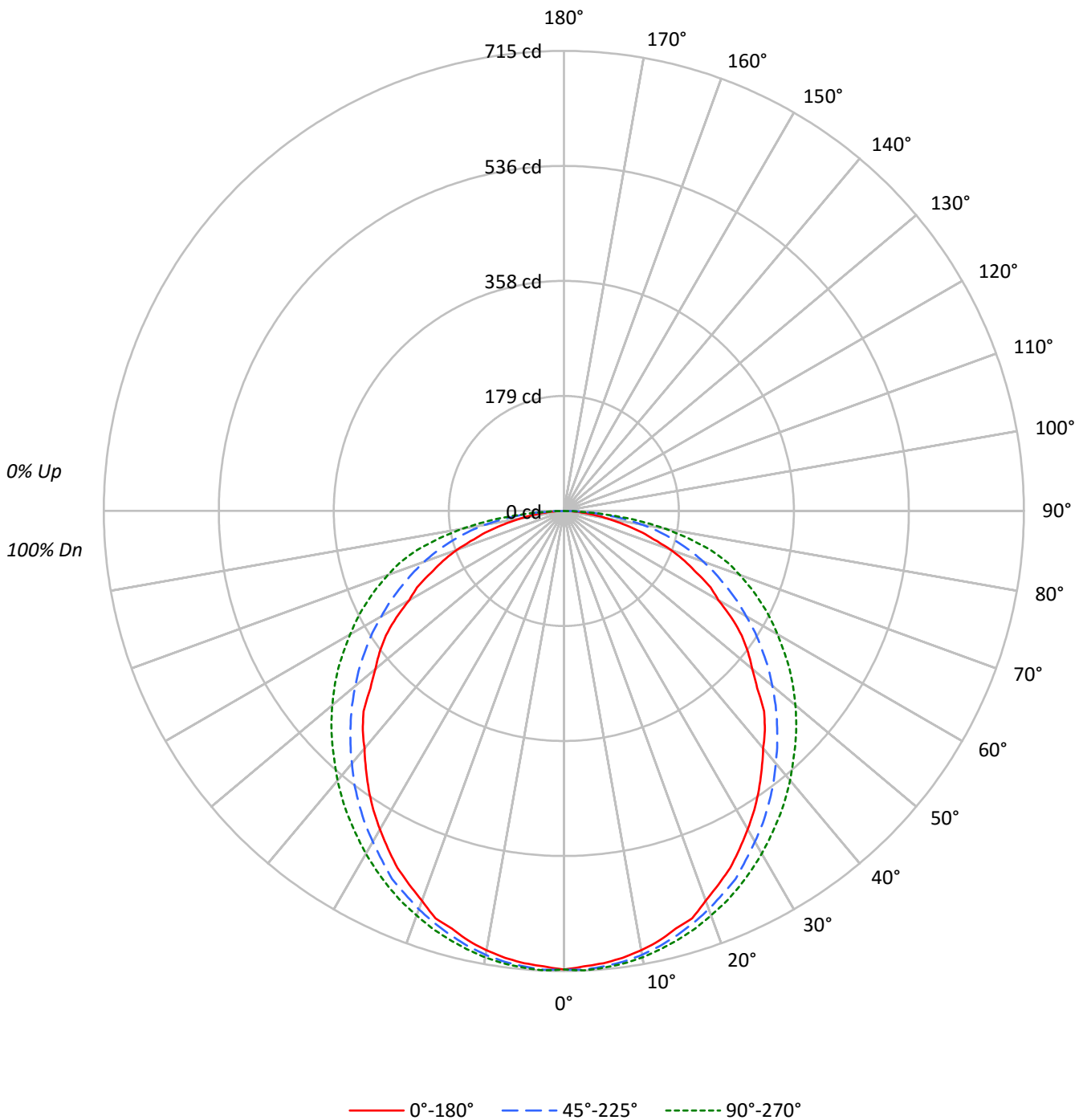
Lumens per Lamp: N/A  
Luminaire Lumens: 2124.0 lumens  
Efficiency: N/A  
Efficacy: 109.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.4  
Input Voltage (V): NR  
Input Current (A<sub>in</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: P308688

CATALOG NUMBER: 22FCZ2-24HE-UNV-L82765-CP250-W2A-U-5700K

### Luminous Intensity Polar Plot





TEST NUMBER: P308688

CATALOG NUMBER: 22FC22-24HE-UNV-L82765-CP250-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	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1918	1918	1918
5°	1906	1920	1925
10°	1894	1914	1925
15°	1872	1900	1920
20°	1846	1886	1916
25°	1817	1874	1914
30°	1775	1845	1911
35°	1736	1824	1914
40°	1693	1800	1921
45°	1675	1783	1938
50°	1600	1770	1966
55°	1583	1765	2008
60°	1493	1762	2062
65°	1450	1773	2155
70°	1392	1816	2287
75°	1268	1870	2463
80°	1086	1937	2489
85°	880	1853	2133



TEST NUMBER: P308688

CATALOG NUMBER: 22FCZ2-24HE-UNV-L82765-CP250-W2A-U-5700K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.4	3.2
10°-20°	192.4	9.1
20°-30°	289.5	13.6
30°-40°	347.5	16.4
40°-50°	363.2	17.1
50°-60°	338.5	15.9
60°-70°	277.6	13.1
70°-80°	187.0	8.8
80°-90°	60.9	2.9
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°	549.3	25.9
0°-40°	896.8	42.2
0°-60°	1598.4	75.3
0°-90°	2124.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2124.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	713	713	713	713	713	
5°	706	708	711	712	713	67
15°	672	676	682	688	689	190
25°	612	616	631	640	644	281
35°	529	536	555	574	582	330
45°	440	443	469	497	509	336
55°	338	344	376	412	428	299
65°	228	238	278	319	338	227
75°	122	135	180	221	237	128
85°	28	41	60	70	69	34
90°	0	0	0	0	0	



TEST NUMBER: P308688

CATALOG NUMBER: 22FCZ2-24HE-UNV-L82765-CP250-W2A-U-5700K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	712.6	712.6	712.6	712.6	712.6
2.5°	708.6	710.6	713.6	714.7	714.7
5°	705.5	707.5	710.6	711.6	712.6
7.5°	700.4	702.5	706.5	708.6	709.6
10°	693.3	695.3	700.4	703.5	704.5
12.5°	684.2	686.2	692.3	696.4	697.4
15°	672.0	676.0	682.1	688.2	689.2
17.5°	663.8	662.8	670.9	678.1	680.1
20°	644.5	649.6	658.7	666.9	668.9
22.5°	628.2	632.3	644.5	653.7	657.7
25°	612.0	616.0	631.3	640.4	644.5
27.5°	591.6	597.7	612.0	625.2	630.3
30°	571.3	577.4	593.7	608.9	615.0
32.5°	551.0	558.1	575.4	591.6	598.8
35°	528.6	535.7	555.1	574.4	582.5
37.5°	505.2	514.4	534.7	556.1	565.2
40°	481.9	491.0	512.4	536.8	546.9
42.5°	462.5	466.6	491.0	517.4	527.6
45°	440.2	443.2	468.6	497.1	509.3
47.5°	407.6	418.8	446.3	477.8	490.0
50°	382.2	394.4	422.9	456.4	469.7
52.5°	360.9	369.0	400.5	434.1	449.3
55°	337.5	343.6	376.1	411.7	428.0
57.5°	309.0	320.2	352.8	389.3	405.6
60°	277.5	291.8	327.3	367.0	383.2
62.5°	257.2	265.3	304.0	343.6	361.9
65°	227.7	237.9	278.5	319.2	338.5
67.5°	203.3	213.5	255.2	295.8	315.1
70°	176.9	187.1	230.8	271.4	290.7
72.5°	146.4	160.6	206.4	247.0	267.4
75°	122.0	135.2	179.9	220.6	236.9
77.5°	94.5	111.8	153.5	187.1	199.2
80°	70.1	87.4	125.0	149.4	160.6
82.5°	47.8	65.1	93.5	111.8	117.9
85°	28.5	40.7	60.0	70.1	69.1
87.5°	13.2	17.3	24.4	24.4	23.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)