

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: P308927

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-S-CA125-W2A-U-4000K**

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: P308927
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
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-S-CA125-W2A-U-4000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" 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: 2303.0 lumens
Efficiency: N/A
Efficacy: 120.6 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

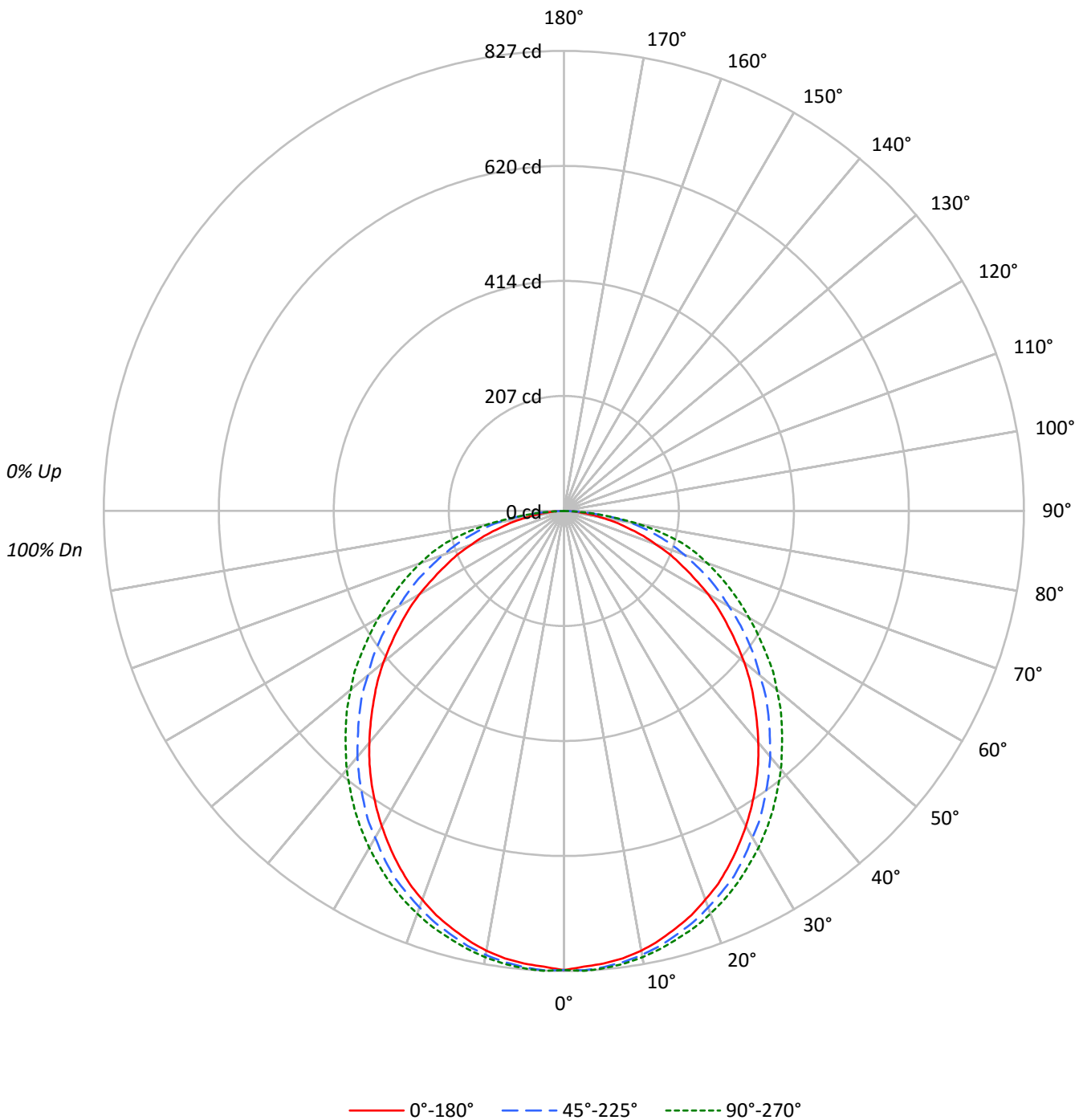
Input Watts (W): 19.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P308927

CATALOG NUMBER: 22FCZ2-24HE-UNV-L82765-S-CA125-W2A-U-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P308927

CATALOG NUMBER: 22FC22-24HE-UNV-L82765-S-CA125-W2A-U-4000K

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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2221	2221	2221
5°	2206	2223	2229
10°	2193	2214	2226
15°	2164	2194	2215
20°	2129	2172	2206
25°	2086	2150	2192
30°	2033	2107	2174
35°	1977	2069	2153
40°	1910	2027	2133
45°	1840	1979	2110
50°	1773	1925	2092
55°	1689	1890	2077
60°	1614	1845	2070
65°	1505	1834	2094
70°	1386	1817	2156
75°	1251	1843	2268
80°	1082	1898	2131
85°	895	1593	1593



TEST NUMBER: P308927

CATALOG NUMBER: 22FCZ2-24HE-UNV-L82765-S-CA125-W2A-U-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.0	3.4
10°-20°	222.1	9.6
20°-30°	332.3	14.4
30°-40°	393.5	17.1
40°-50°	401.1	17.4
50°-60°	359.5	15.6
60°-70°	281.4	12.2
70°-80°	181.5	7.9
80°-90°	53.6	2.3
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°	632.4	27.5
0°-40°	1026.0	44.5
0°-60°	1786.5	77.6
0°-90°	2303.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2303.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	825	825	825	825	825	
5°	817	819	823	824	825	78
15°	777	781	788	794	795	219
25°	703	709	724	734	738	323
35°	602	609	630	649	656	376
45°	484	494	520	547	554	373
55°	360	372	403	431	443	323
65°	236	250	288	316	329	235
75°	120	139	177	207	218	129
85°	29	40	52	52	52	34
90°	0	0	0	0	0	



TEST NUMBER: P308927

CATALOG NUMBER: 22FC22-24HE-UNV-L82765-S-CA125-W2A-U-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	825.2	825.2	825.2	825.2	825.2
2.5°	819.9	822.0	826.3	827.4	827.4
5°	816.6	818.8	823.1	824.2	825.2
7.5°	811.3	812.3	817.7	819.9	820.9
10°	802.7	804.8	810.2	813.4	814.5
12.5°	790.9	794.1	800.5	804.8	805.9
15°	776.9	781.2	787.6	794.1	795.1
17.5°	761.8	766.1	774.7	782.3	784.4
20°	743.6	748.9	758.6	767.2	770.4
22.5°	725.3	729.6	741.4	752.2	755.4
25°	702.7	709.2	724.2	733.9	738.2
27.5°	679.1	686.6	701.7	714.6	718.9
30°	654.4	661.9	678.0	694.1	699.5
32.5°	628.6	637.2	656.5	672.7	678.0
35°	601.7	609.3	629.7	649.0	655.5
37.5°	573.8	580.2	603.9	624.3	630.7
40°	543.7	552.3	577.0	600.7	607.1
42.5°	513.6	523.3	548.0	573.8	580.2
45°	483.5	494.3	520.1	546.9	554.5
47.5°	454.5	463.1	492.1	517.9	528.7
50°	423.4	432.0	459.9	488.9	499.7
52.5°	391.1	402.9	433.0	461.0	473.9
55°	360.0	371.8	402.9	430.9	442.7
57.5°	331.0	340.6	372.9	401.9	413.7
60°	299.8	308.4	342.8	373.9	384.7
62.5°	266.5	279.4	314.8	343.8	356.7
65°	236.4	250.4	288.0	315.9	328.8
67.5°	208.5	221.4	257.9	288.0	301.9
70°	176.2	193.4	231.0	261.1	274.0
72.5°	150.4	165.5	204.2	234.2	248.2
75°	120.3	138.6	177.3	207.4	218.1
77.5°	95.6	113.9	150.4	174.1	179.4
80°	69.8	88.1	122.5	134.3	137.5
82.5°	47.3	64.5	88.1	91.3	92.4
85°	29.0	39.8	51.6	51.6	51.6
87.5°	14.0	16.1	18.3	17.2	17.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)