

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: P308700

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-CA125-W2A-U-3000K**

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: P308700  
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: 22FCZ2-29HE-UNV-L82765-CA125-W2A-U-3000K  
Description: 2'X2' TROFFER LED MODULE, RIBBED 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**

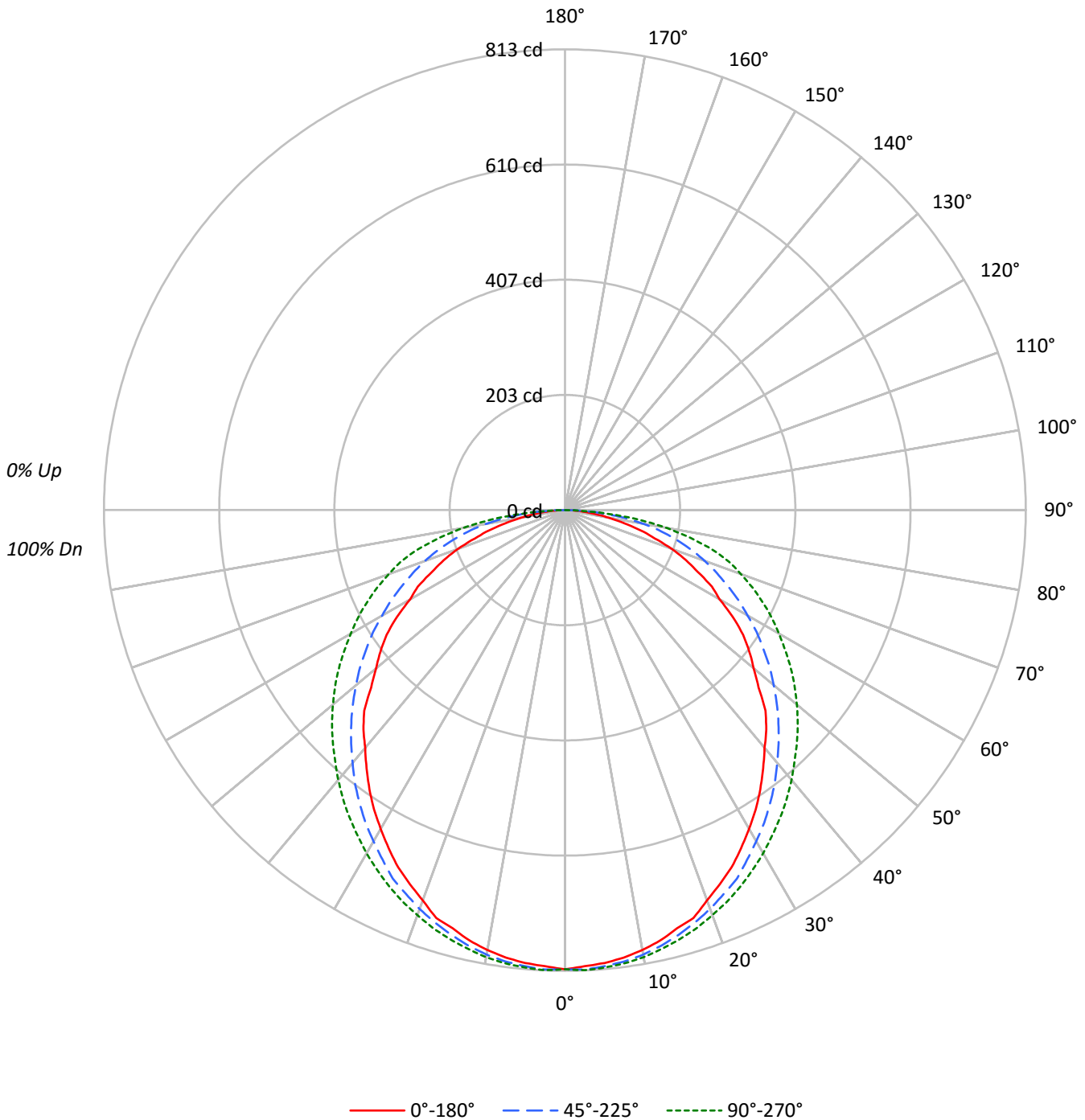
Lumens per Lamp: N/A  
Luminaire Lumens: 2415.0 lumens  
Efficiency: N/A  
Efficacy: 108.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 22.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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: P308700

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-CA125-W2A-U-3000K

### Luminous Intensity Polar Plot





TEST NUMBER: P308700

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-CA125-W2A-U-3000K

**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°	2181	2181	2181
5°	2167	2182	2189
10°	2154	2176	2189
15°	2128	2161	2183
20°	2099	2145	2178
25°	2066	2131	2176
30°	2018	2097	2173
35°	1974	2073	2176
40°	1925	2046	2184
45°	1905	2028	2204
50°	1819	2013	2236
55°	1800	2007	2283
60°	1698	2003	2345
65°	1649	2017	2451
70°	1582	2065	2601
75°	1442	2127	2800
80°	1237	2204	2830
85°	1000	2106	2427



TEST NUMBER: P308700

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-CA125-W2A-U-3000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.7	3.2
10°-20°	218.7	9.1
20°-30°	329.2	13.6
30°-40°	395.1	16.4
40°-50°	412.9	17.1
50°-60°	384.8	15.9
60°-70°	315.6	13.1
70°-80°	212.7	8.8
80°-90°	69.3	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°	624.6	25.9
0°-40°	1019.7	42.2
0°-60°	1817.4	75.3
0°-90°	2415.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2415.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	810	810	810	810	810	
5°	802	804	808	809	810	76
15°	764	769	776	782	784	216
25°	696	700	718	728	733	320
35°	601	609	631	653	662	376
45°	500	504	533	565	579	382
55°	384	391	428	468	487	340
65°	259	270	317	363	385	258
75°	139	154	205	251	269	146
85°	32	46	68	80	79	39
90°	0	0	0	0	0	



TEST NUMBER: P308700

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-CA125-W2A-U-3000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	810.3	810.3	810.3	810.3	810.3
2.5°	805.6	807.9	811.4	812.6	812.6
5°	802.2	804.5	807.9	809.1	810.3
7.5°	796.4	798.7	803.3	805.6	806.8
10°	788.3	790.6	796.4	799.9	801.0
12.5°	777.9	780.2	787.1	791.8	792.9
15°	764.0	768.6	775.6	782.5	783.7
17.5°	754.8	753.6	762.9	771.0	773.3
20°	732.8	738.6	749.0	758.2	760.6
22.5°	714.3	718.9	732.8	743.2	747.8
25°	695.8	700.4	717.8	728.2	732.8
27.5°	672.7	679.6	695.8	710.8	716.6
30°	649.6	656.5	675.0	692.4	699.3
32.5°	626.5	634.6	654.2	672.7	680.8
35°	601.0	609.1	631.1	653.1	662.3
37.5°	574.5	584.9	608.0	632.3	642.7
40°	547.9	558.3	582.5	610.3	621.8
42.5°	525.9	530.5	558.3	588.3	599.9
45°	500.5	504.0	532.8	565.2	579.1
47.5°	463.5	476.2	507.4	543.3	557.1
50°	434.6	448.5	480.8	519.0	534.0
52.5°	410.3	419.6	455.4	493.5	510.9
55°	383.7	390.7	427.7	468.1	486.6
57.5°	351.4	364.1	401.1	442.7	461.2
60°	315.5	331.7	372.2	417.3	435.8
62.5°	292.4	301.7	345.6	390.7	411.5
65°	258.9	270.5	316.7	362.9	384.9
67.5°	231.2	242.7	290.1	336.4	358.3
70°	201.1	212.7	262.4	308.6	330.6
72.5°	166.4	182.6	234.6	280.9	304.0
75°	138.7	153.7	204.6	250.8	269.3
77.5°	107.5	127.1	174.5	212.7	226.5
80°	79.8	99.4	142.2	169.9	182.6
82.5°	54.3	74.0	106.3	127.1	134.1
85°	32.4	46.2	68.2	79.8	78.6
87.5°	15.0	19.6	27.7	27.7	26.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)