

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: P308701

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-CA125-W2A-U-3500K**

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: P308701  
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-3500K  
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**

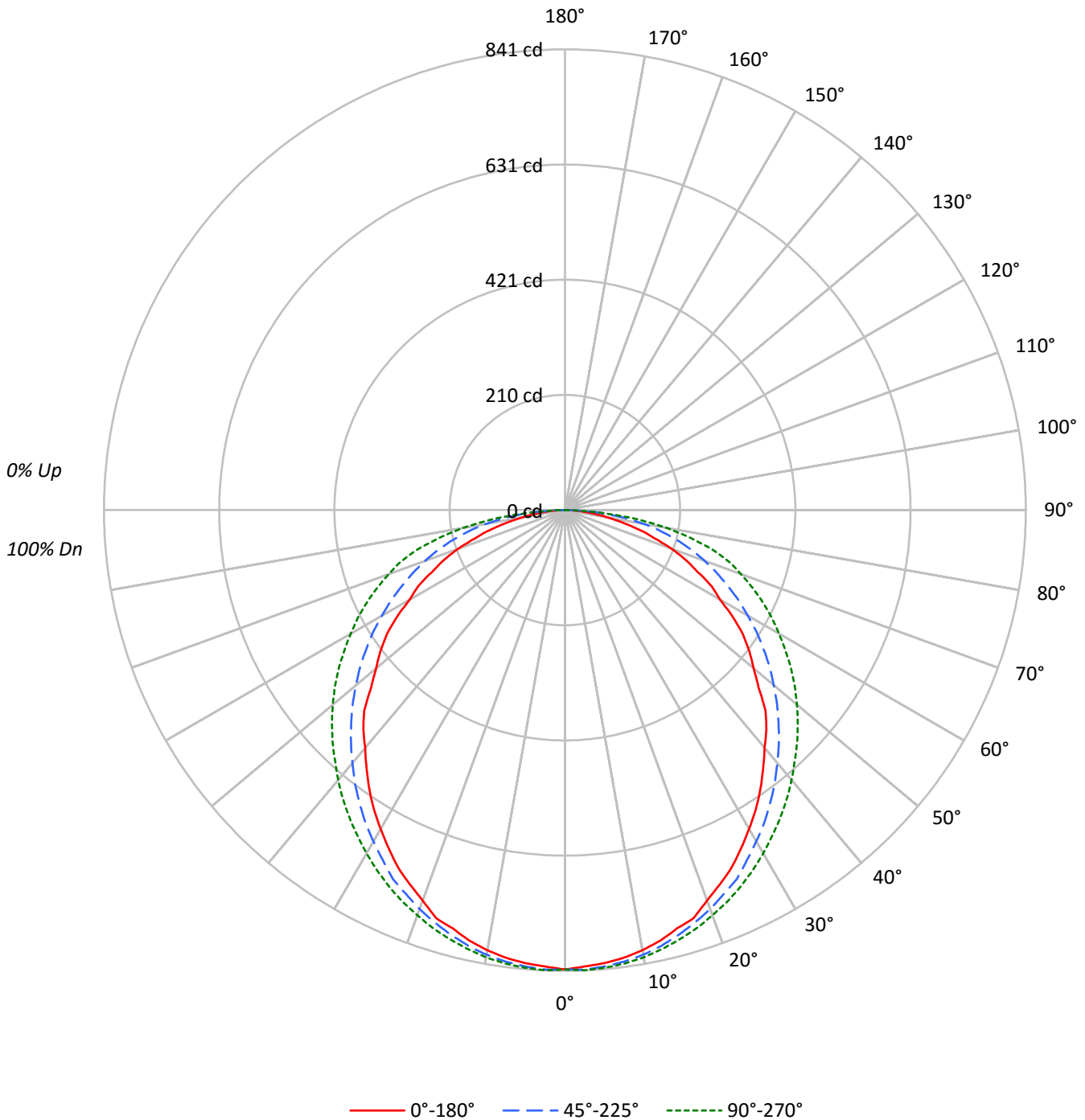
Lumens per Lamp: N/A  
Luminaire Lumens: 2499.0 lumens  
Efficiency: N/A  
Efficacy: 111.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 22.5  
Input Voltage (V): NR  
Input Current (A<sub>in</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



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### Luminous Intensity Polar Plot





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**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°	2256	2256	2256
5°	2242	2258	2265
10°	2229	2252	2265
15°	2203	2236	2259
20°	2172	2219	2254
25°	2138	2205	2252
30°	2089	2170	2248
35°	2043	2145	2251
40°	1991	2118	2261
45°	1971	2098	2280
50°	1883	2083	2313
55°	1863	2076	2362
60°	1757	2073	2427
65°	1706	2087	2536
70°	1637	2136	2692
75°	1492	2201	2898
80°	1278	2280	2929
85°	1034	2180	2510



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.3	3.2
10°-20°	226.3	9.1
20°-30°	340.6	13.6
30°-40°	408.8	16.4
40°-50°	427.3	17.1
50°-60°	398.2	15.9
60°-70°	326.6	13.1
70°-80°	220.1	8.8
80°-90°	71.7	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°	646.3	25.9
0°-40°	1055.1	42.2
0°-60°	1880.6	75.3
0°-90°	2499.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2499.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	838	838	838	838	838	
5°	830	832	836	837	838	79
15°	791	795	803	810	811	223
25°	720	725	743	754	758	331
35°	622	630	653	676	685	389
45°	518	522	551	585	599	396
55°	397	404	442	484	504	352
65°	268	280	328	376	398	266
75°	144	159	212	260	279	151
85°	34	48	71	82	81	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	838.4	838.4	838.4	838.4	838.4
2.5°	833.7	836.0	839.6	840.8	840.8
5°	830.1	832.5	836.0	837.2	838.4
7.5°	824.1	826.5	831.3	833.7	834.8
10°	815.7	818.1	824.1	827.7	828.9
12.5°	804.9	807.3	814.5	819.3	820.5
15°	790.6	795.4	802.6	809.7	810.9
17.5°	781.0	779.8	789.4	797.8	800.2
20°	758.3	764.3	775.0	784.6	787.0
22.5°	739.2	743.9	758.3	769.1	773.8
25°	720.0	724.8	742.8	753.5	758.3
27.5°	696.1	703.3	720.0	735.6	741.6
30°	672.2	679.4	698.5	716.4	723.6
32.5°	648.3	656.6	677.0	696.1	704.5
35°	621.9	630.3	653.0	675.8	685.3
37.5°	594.4	605.2	629.1	654.2	665.0
40°	566.9	577.7	602.8	631.5	643.5
42.5°	544.2	549.0	577.7	608.8	620.8
45°	517.9	521.5	551.4	584.9	599.2
47.5°	479.6	492.8	525.1	562.1	576.5
50°	449.7	464.1	497.6	537.0	552.6
52.5°	424.6	434.2	471.2	510.7	528.7
55°	397.1	404.3	442.5	484.4	503.5
57.5°	363.6	376.8	415.0	458.1	477.2
60°	326.5	343.3	385.1	431.8	450.9
62.5°	302.6	312.2	357.6	404.3	425.8
65°	267.9	279.9	327.7	375.6	398.3
67.5°	239.2	251.2	300.2	348.1	370.8
70°	208.1	220.1	271.5	319.3	342.1
72.5°	172.2	189.0	242.8	290.6	314.6
75°	143.5	159.1	211.7	259.5	278.7
77.5°	111.2	131.6	180.6	220.1	234.4
80°	82.5	102.9	147.1	175.8	189.0
82.5°	56.2	76.5	110.0	131.6	138.7
85°	33.5	47.8	70.6	82.5	81.3
87.5°	15.5	20.3	28.7	28.7	27.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)