

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: P308657

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-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: P308657  
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-CA125-W2A-U-4000K  
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**

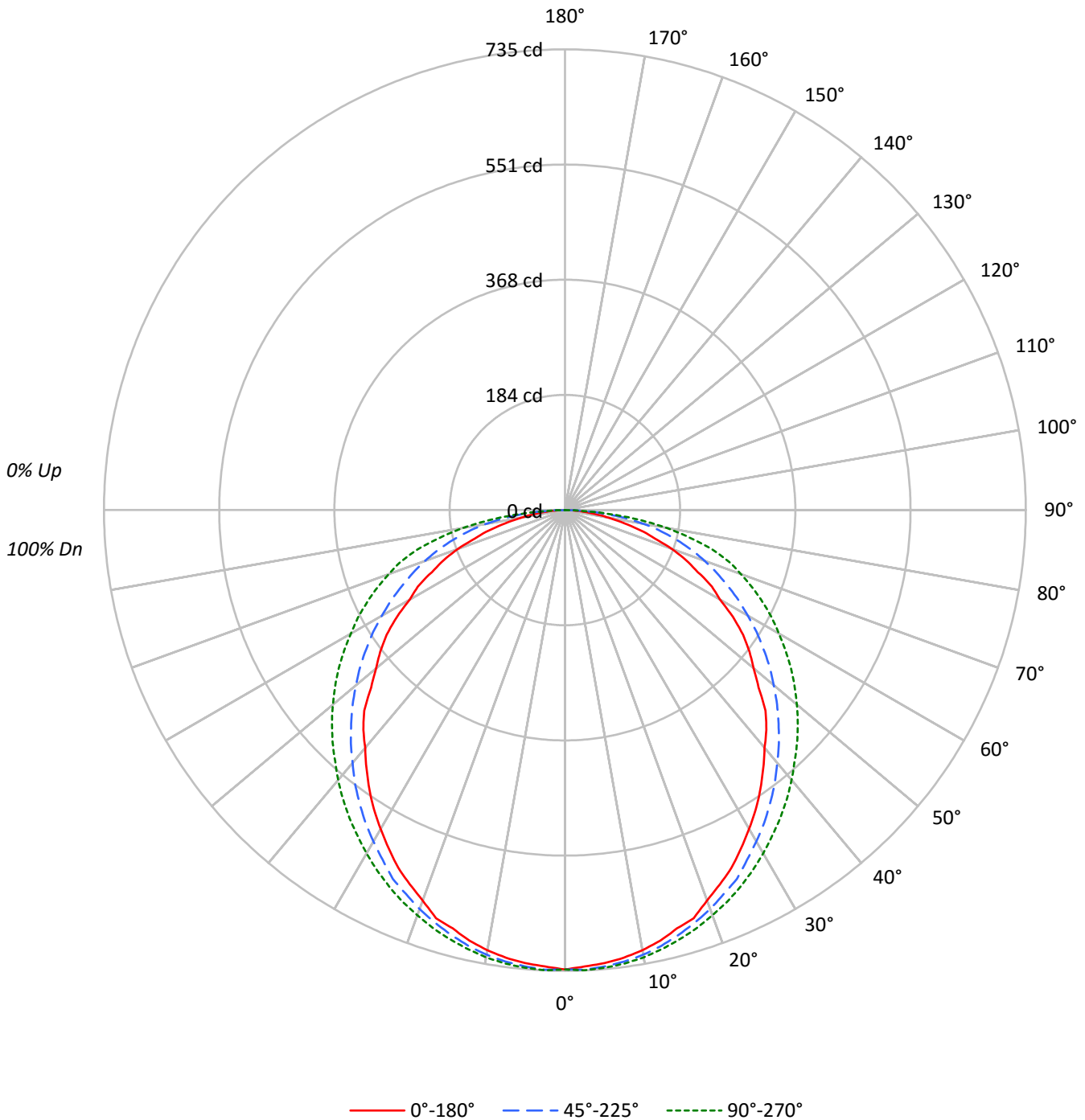
Lumens per Lamp: N/A  
Luminaire Lumens: 2184.0 lumens  
Efficiency: N/A  
Efficacy: 114.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.1  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	1972	1972	1972
5°	1959	1974	1979
10°	1948	1968	1979
15°	1925	1954	1974
20°	1898	1940	1970
25°	1868	1927	1968
30°	1826	1897	1965
35°	1786	1875	1968
40°	1741	1851	1976
45°	1722	1834	1993
50°	1645	1820	2022
55°	1628	1815	2065
60°	1536	1812	2121
65°	1491	1824	2216
70°	1431	1867	2353
75°	1304	1923	2533
80°	1117	1993	2560
85°	905	1905	2195



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.3	3.2
10°-20°	197.8	9.1
20°-30°	297.7	13.6
30°-40°	357.3	16.4
40°-50°	373.4	17.1
50°-60°	348.0	15.9
60°-70°	285.4	13.1
70°-80°	192.3	8.8
80°-90°	62.7	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°	564.8	25.9
0°-40°	922.1	42.2
0°-60°	1643.6	75.3
0°-90°	2184.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2184.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	733	733	733	733	733	
5°	725	728	731	732	733	69
15°	691	695	701	708	709	195
25°	629	633	649	658	663	289
35°	544	551	571	591	599	340
45°	453	456	482	511	524	346
55°	347	353	387	423	440	308
65°	234	245	286	328	348	233
75°	125	139	185	227	244	132
85°	29	42	62	72	71	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	732.8	732.8	732.8	732.8	732.8
2.5°	728.6	730.7	733.8	734.8	734.8
5°	725.4	727.5	730.7	731.7	732.8
7.5°	720.2	722.3	726.5	728.6	729.6
10°	712.9	715.0	720.2	723.3	724.4
12.5°	703.5	705.6	711.8	716.0	717.1
15°	690.9	695.1	701.4	707.7	708.7
17.5°	682.6	681.5	689.9	697.2	699.3
20°	662.7	667.9	677.3	685.7	687.8
22.5°	646.0	650.2	662.7	672.1	676.3
25°	629.3	633.4	649.1	658.5	662.7
27.5°	608.4	614.6	629.3	642.9	648.1
30°	587.5	593.7	610.5	626.1	632.4
32.5°	566.5	573.9	591.6	608.4	615.7
35°	543.6	550.9	570.7	590.6	599.0
37.5°	519.5	528.9	549.8	571.8	581.2
40°	495.5	504.9	526.8	551.9	562.4
42.5°	475.6	479.8	504.9	532.1	542.5
45°	452.6	455.7	481.9	511.1	523.7
47.5°	419.2	430.7	458.9	491.3	503.8
50°	393.0	405.6	434.8	469.3	482.9
52.5°	371.1	379.4	411.8	446.3	462.0
55°	347.0	353.3	386.8	423.3	440.1
57.5°	317.8	329.3	362.7	400.3	417.1
60°	285.4	300.0	336.6	377.4	394.1
62.5°	264.5	272.8	312.5	353.3	372.1
65°	234.1	244.6	286.4	328.2	348.1
67.5°	209.1	219.5	262.4	304.2	324.0
70°	181.9	192.3	237.3	279.1	299.0
72.5°	150.5	165.2	212.2	254.0	274.9
75°	125.4	139.0	185.0	226.8	243.6
77.5°	97.2	115.0	157.8	192.3	204.9
80°	72.1	89.9	128.6	153.7	165.2
82.5°	49.1	66.9	96.2	115.0	121.3
85°	29.3	41.8	61.7	72.1	71.1
87.5°	13.6	17.8	25.1	25.1	24.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)