

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: P308662

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-CA125-W2A-U-6500K**

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: P308662
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-6500K
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: 2286.0 lumens
Efficiency: N/A
Efficacy: 116.0 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

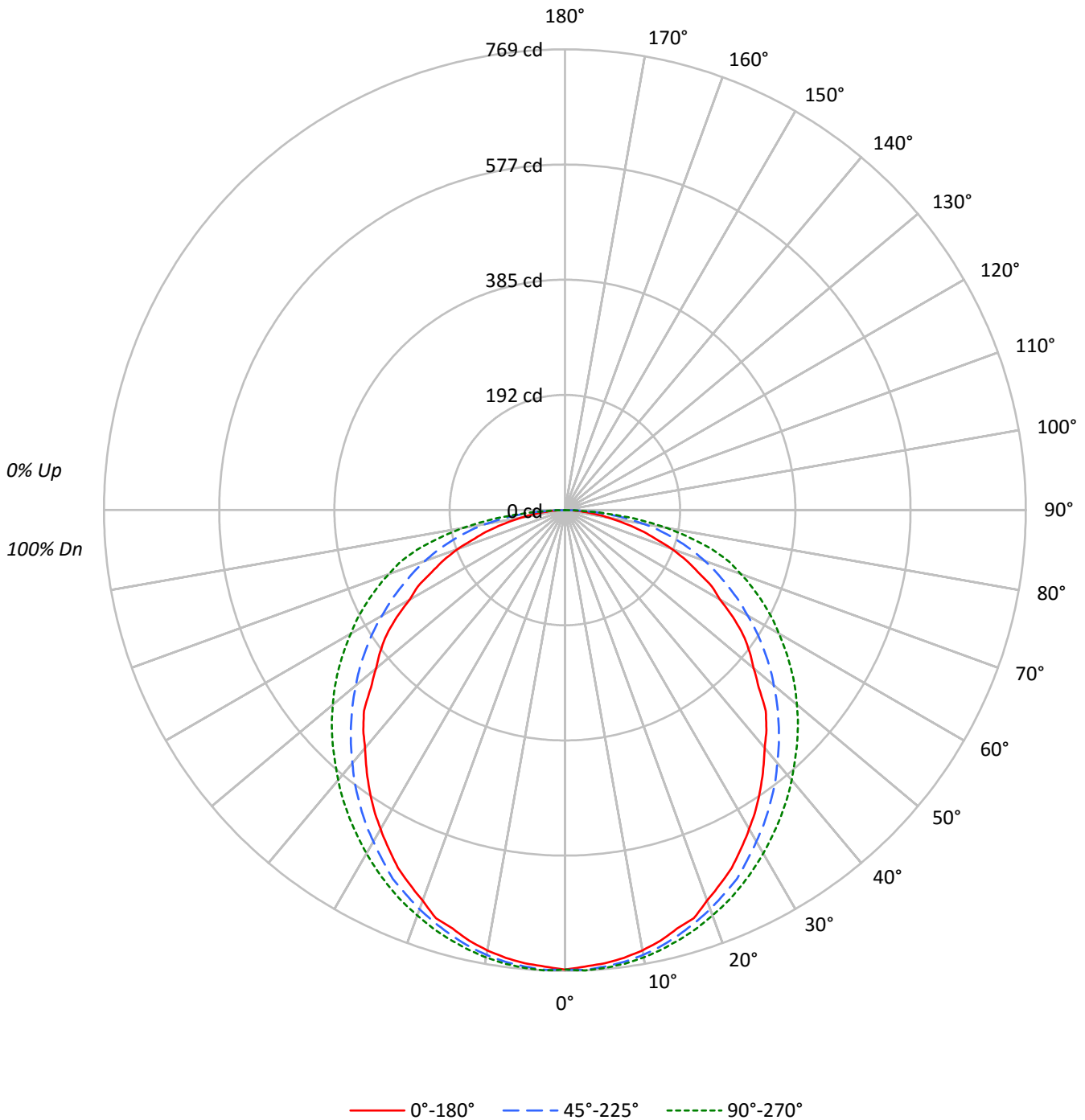
Input Watts (W): 19.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2064	2064	2064
5°	2051	2066	2072
10°	2039	2060	2072
15°	2015	2045	2067
20°	1987	2030	2062
25°	1956	2017	2060
30°	1911	1986	2057
35°	1869	1963	2059
40°	1822	1937	2068
45°	1803	1920	2086
50°	1722	1906	2116
55°	1704	1899	2161
60°	1608	1896	2220
65°	1561	1909	2320
70°	1498	1954	2462
75°	1365	2014	2650
80°	1170	2086	2679
85°	945	1995	2297



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.6	3.2
10°-20°	207.0	9.1
20°-30°	311.6	13.6
30°-40°	374.0	16.4
40°-50°	390.9	17.1
50°-60°	364.3	15.9
60°-70°	298.8	13.1
70°-80°	201.3	8.8
80°-90°	65.6	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°	591.2	25.9
0°-40°	965.2	42.2
0°-60°	1720.3	75.3
0°-90°	2286.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2286.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	767	767	767	767	767	
5°	759	762	765	766	767	72
15°	723	728	734	741	742	204
25°	659	663	679	689	694	303
35°	569	577	597	618	627	356
45°	474	477	504	535	548	362
55°	363	370	405	443	461	322
65°	245	256	300	344	364	244
75°	131	146	194	237	255	138
85°	31	44	65	76	74	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	767.0	767.0	767.0	767.0	767.0
2.5°	762.6	764.8	768.1	769.2	769.2
5°	759.3	761.5	764.8	765.9	767.0
7.5°	753.8	756.0	760.4	762.6	763.7
10°	746.2	748.4	753.8	757.1	758.2
12.5°	736.3	738.5	745.1	749.5	750.6
15°	723.2	727.6	734.1	740.7	741.8
17.5°	714.5	713.4	722.1	729.8	732.0
20°	693.7	699.1	709.0	717.7	719.9
22.5°	676.2	680.5	693.7	703.5	707.9
25°	658.7	663.0	679.4	689.3	693.7
27.5°	636.8	643.3	658.7	672.9	678.3
30°	614.9	621.5	639.0	655.4	661.9
32.5°	593.0	600.7	619.3	636.8	644.4
35°	568.9	576.6	597.4	618.2	626.9
37.5°	543.8	553.6	575.5	598.5	608.3
40°	518.6	528.5	551.4	577.7	588.6
42.5°	497.8	502.2	528.5	556.9	567.8
45°	473.8	477.0	504.4	535.0	548.2
47.5°	438.7	450.8	480.3	514.2	527.4
50°	411.4	424.5	455.2	491.3	505.5
52.5°	388.4	397.2	431.1	467.2	483.6
55°	363.2	369.8	404.8	443.1	460.6
57.5°	332.6	344.6	379.7	419.0	436.6
60°	298.7	314.0	352.3	395.0	412.5
62.5°	276.8	285.6	327.1	369.8	389.5
65°	245.1	256.0	299.8	343.6	364.3
67.5°	218.8	229.8	274.6	318.4	339.2
70°	190.4	201.3	248.4	292.1	312.9
72.5°	157.6	172.9	222.1	265.9	287.8
75°	131.3	145.5	193.7	237.4	254.9
77.5°	101.8	120.4	165.2	201.3	214.4
80°	75.5	94.1	134.6	160.8	172.9
82.5°	51.4	70.0	100.7	120.4	126.9
85°	30.6	43.8	64.6	75.5	74.4
87.5°	14.2	18.6	26.3	26.3	25.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)