

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: P308668

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-CP125-W2A-U-5000K**

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: P308668
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-CP125-W2A-U-5000K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB 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: 2208.0 lumens
Efficiency: N/A
Efficacy: 114.4 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

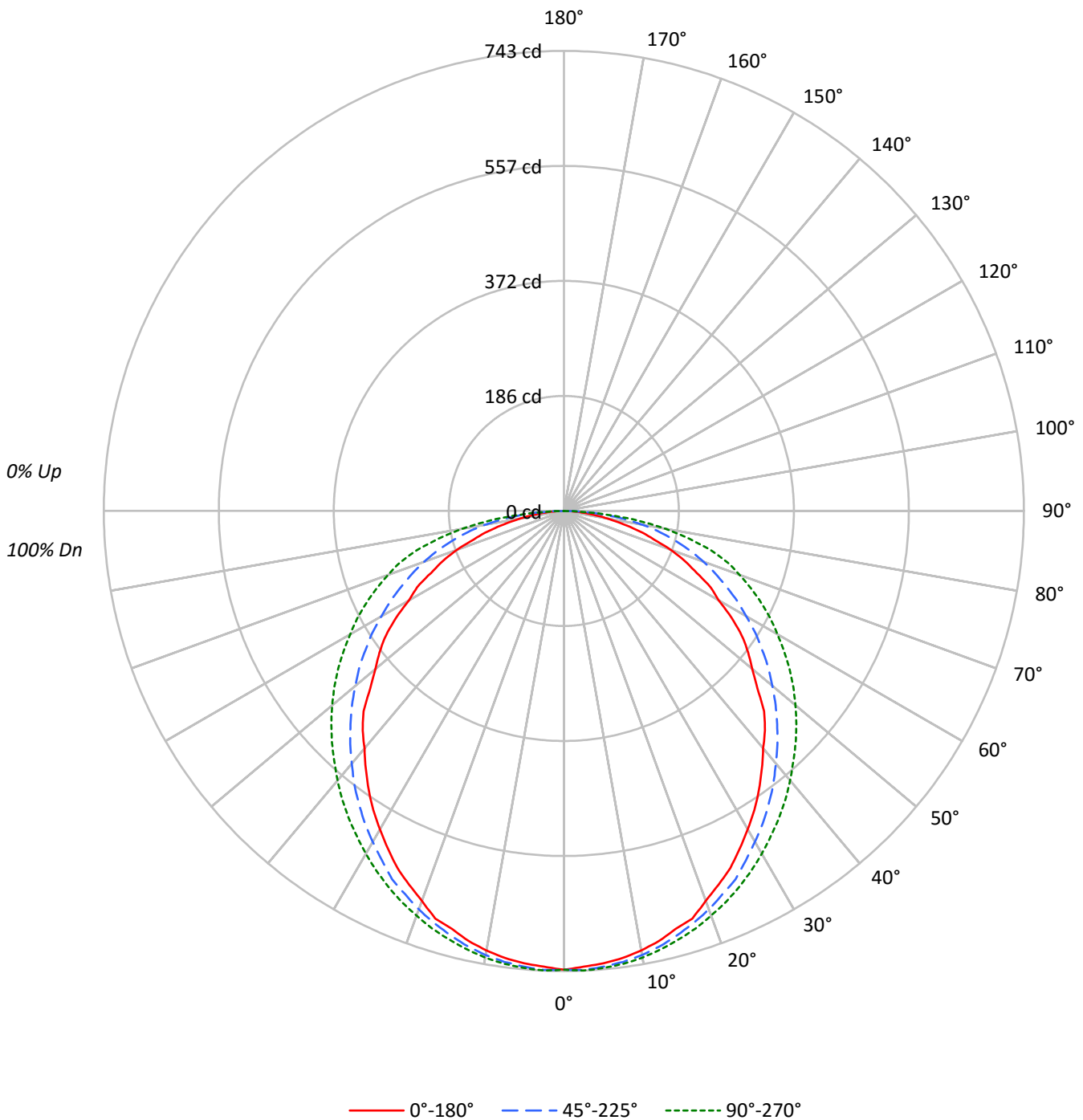
Input Watts (W): 19.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1993	1993	1993
5°	1981	1995	2001
10°	1969	1990	2001
15°	1946	1975	1996
20°	1919	1961	1991
25°	1889	1949	1989
30°	1845	1918	1987
35°	1805	1895	1989
40°	1760	1871	1997
45°	1741	1854	2015
50°	1663	1840	2044
55°	1646	1834	2087
60°	1553	1831	2144
65°	1507	1844	2241
70°	1447	1888	2378
75°	1318	1945	2560
80°	1130	2015	2588
85°	914	1927	2220



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.1	3.2
10°-20°	200.0	9.1
20°-30°	301.0	13.6
30°-40°	361.2	16.4
40°-50°	377.5	17.1
50°-60°	351.8	15.9
60°-70°	288.6	13.1
70°-80°	194.4	8.8
80°-90°	63.3	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°	571.0	25.9
0°-40°	932.3	42.2
0°-60°	1661.6	75.3
0°-90°	2208.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2208.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	741	741	741	741	741	
5°	733	736	739	740	741	70
15°	698	703	709	715	716	197
25°	636	640	656	666	670	292
35°	550	557	577	597	606	344
45°	458	461	487	517	529	350
55°	351	357	391	428	445	311
65°	237	247	290	332	352	235
75°	127	141	187	229	246	133
85°	30	42	62	73	72	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	740.8	740.8	740.8	740.8	740.8
2.5°	736.6	738.7	741.9	742.9	742.9
5°	733.4	735.5	738.7	739.7	740.8
7.5°	728.1	730.2	734.5	736.6	737.6
10°	720.7	722.8	728.1	731.3	732.3
12.5°	711.2	713.3	719.7	723.9	725.0
15°	698.5	702.8	709.1	715.4	716.5
17.5°	690.1	689.0	697.5	704.9	707.0
20°	670.0	675.3	684.8	693.2	695.4
22.5°	653.1	657.3	670.0	679.5	683.7
25°	636.2	640.4	656.3	665.8	670.0
27.5°	615.0	621.4	636.2	649.9	655.2
30°	593.9	600.3	617.2	633.0	639.4
32.5°	572.8	580.2	598.1	615.0	622.4
35°	549.5	556.9	577.0	597.1	605.5
37.5°	525.2	534.7	555.9	578.1	587.6
40°	500.9	510.4	532.6	558.0	568.5
42.5°	480.8	485.1	510.4	537.9	548.5
45°	457.6	460.8	487.2	516.8	529.4
47.5°	423.8	435.4	463.9	496.7	509.4
50°	397.3	410.0	439.6	474.5	488.2
52.5°	375.2	383.6	416.4	451.2	467.1
55°	350.9	357.2	391.0	428.0	444.9
57.5°	321.3	332.9	366.7	404.7	421.7
60°	288.5	303.3	340.3	381.5	398.4
62.5°	267.4	275.8	316.0	357.2	376.2
65°	236.7	247.3	289.6	331.8	351.9
67.5°	211.4	221.9	265.3	307.5	327.6
70°	183.9	194.4	239.9	282.2	302.2
72.5°	152.2	167.0	214.5	256.8	277.9
75°	126.8	140.6	187.1	229.3	246.2
77.5°	98.3	116.2	159.6	194.4	207.1
80°	72.9	90.9	130.0	155.3	167.0
82.5°	49.7	67.6	97.2	116.2	122.6
85°	29.6	42.3	62.4	72.9	71.9
87.5°	13.7	18.0	25.4	25.4	24.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)