

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: P308930

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-S-CA125-W2A-U-5500K**

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: P308930
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
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-S-CA125-W2A-U-5500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH 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: 2399.0 lumens
Efficiency: N/A
Efficacy: 123.7 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

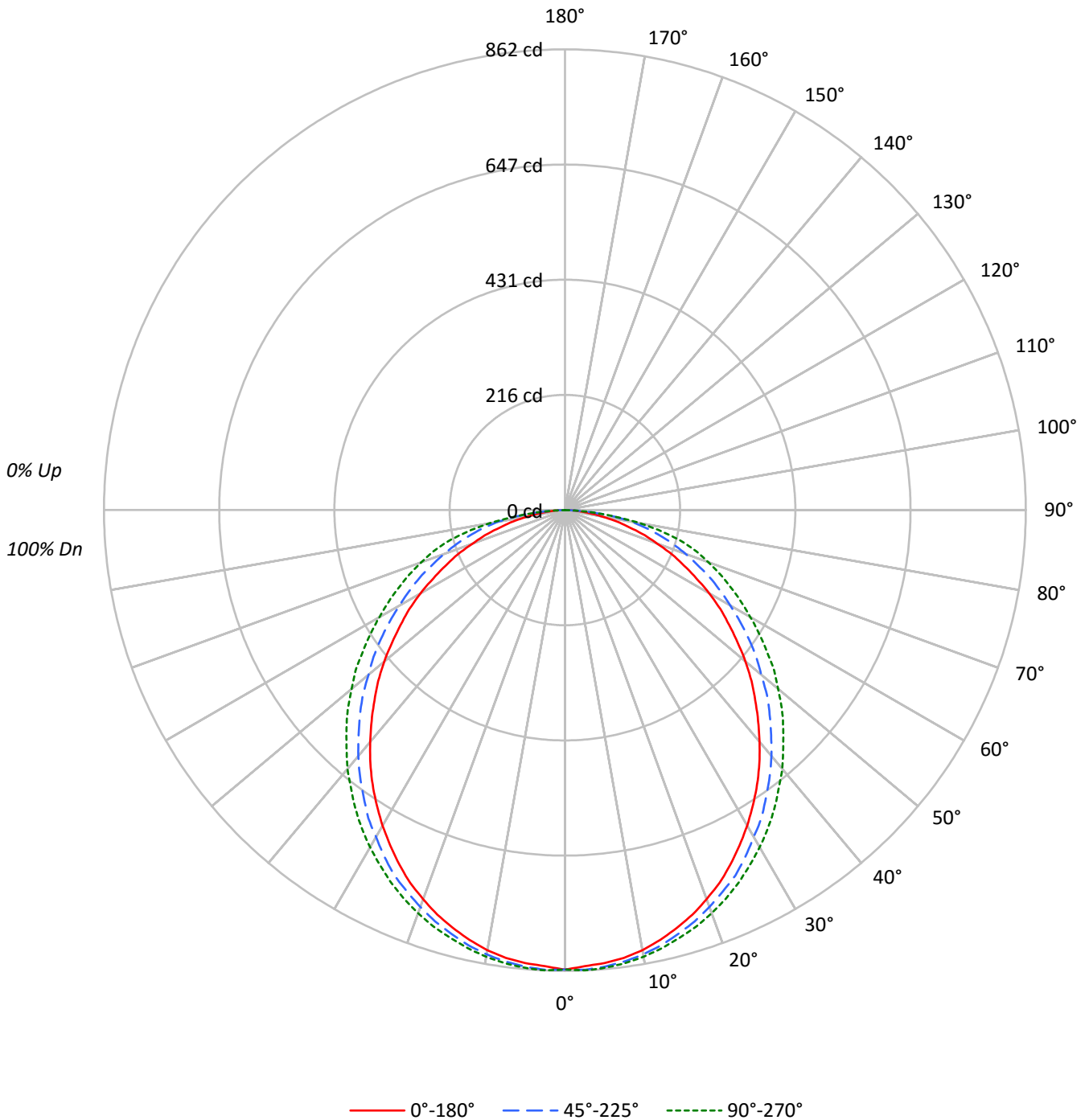
Input Watts (W): 19.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2313	2313	2313
5°	2298	2316	2322
10°	2285	2306	2318
15°	2255	2286	2308
20°	2218	2263	2298
25°	2173	2240	2283
30°	2118	2195	2264
35°	2059	2155	2243
40°	1990	2112	2222
45°	1917	2062	2198
50°	1846	2006	2179
55°	1759	1969	2164
60°	1681	1922	2157
65°	1568	1910	2181
70°	1445	1894	2245
75°	1304	1920	2362
80°	1128	1977	2221
85°	932	1658	1658



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.3	3.4
10°-20°	231.4	9.6
20°-30°	346.2	14.4
30°-40°	409.9	17.1
40°-50°	417.8	17.4
50°-60°	374.4	15.6
60°-70°	293.2	12.2
70°-80°	189.0	7.9
80°-90°	55.8	2.3
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°	658.8	27.5
0°-40°	1068.7	44.5
0°-60°	1861.0	77.6
0°-90°	2399.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2399.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	860	860	860	860	860	
5°	851	853	857	858	860	81
15°	809	814	820	827	828	228
25°	732	739	754	764	769	337
35°	627	635	656	676	683	392
45°	504	515	542	570	578	389
55°	375	387	420	449	461	336
65°	246	261	300	329	342	245
75°	125	144	185	216	227	134
85°	30	41	54	54	54	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	859.6	859.6	859.6	859.6	859.6
2.5°	854.0	856.3	860.8	861.9	861.9
5°	850.7	852.9	857.4	858.5	859.6
7.5°	845.1	846.2	851.8	854.0	855.2
10°	836.1	838.4	844.0	847.3	848.4
12.5°	823.8	827.2	833.9	838.4	839.5
15°	809.3	813.7	820.5	827.2	828.3
17.5°	793.6	798.1	807.0	814.9	817.1
20°	774.6	780.2	790.2	799.2	802.6
22.5°	755.5	760.0	772.3	783.5	786.9
25°	732.0	738.8	754.4	764.5	769.0
27.5°	707.4	715.2	730.9	744.3	748.8
30°	681.7	689.5	706.3	723.1	728.7
32.5°	654.8	663.8	683.9	700.7	706.3
35°	626.8	634.7	655.9	676.1	682.8
37.5°	597.7	604.4	629.1	650.3	657.0
40°	566.4	575.3	601.1	625.7	632.4
42.5°	535.0	545.1	570.9	597.7	604.4
45°	503.7	514.9	541.8	569.7	577.6
47.5°	473.5	482.4	512.6	539.5	550.7
50°	441.0	450.0	479.1	509.3	520.5
52.5°	407.4	419.7	451.1	480.2	493.6
55°	375.0	387.3	419.7	448.8	461.2
57.5°	344.8	354.8	388.4	418.6	430.9
60°	312.3	321.2	357.1	389.5	400.7
62.5°	277.6	291.0	328.0	358.2	371.6
65°	246.3	260.8	300.0	329.1	342.5
67.5°	217.1	230.6	268.6	300.0	314.5
70°	183.6	201.5	240.7	272.0	285.4
72.5°	156.7	172.4	212.7	244.0	258.6
75°	125.4	144.4	184.7	216.0	227.2
77.5°	99.6	118.6	156.7	181.3	186.9
80°	72.8	91.8	127.6	139.9	143.3
82.5°	49.3	67.2	91.8	95.1	96.3
85°	30.2	41.4	53.7	53.7	53.7
87.5°	14.6	16.8	19.0	17.9	17.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)