

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: P308615

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-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: P308615
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: 22FCZ2-20HE-UNV-L82765-CA125-W2A-U-5500K
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: 2016.0 lumens
Efficiency: N/A
Efficacy: 117.2 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

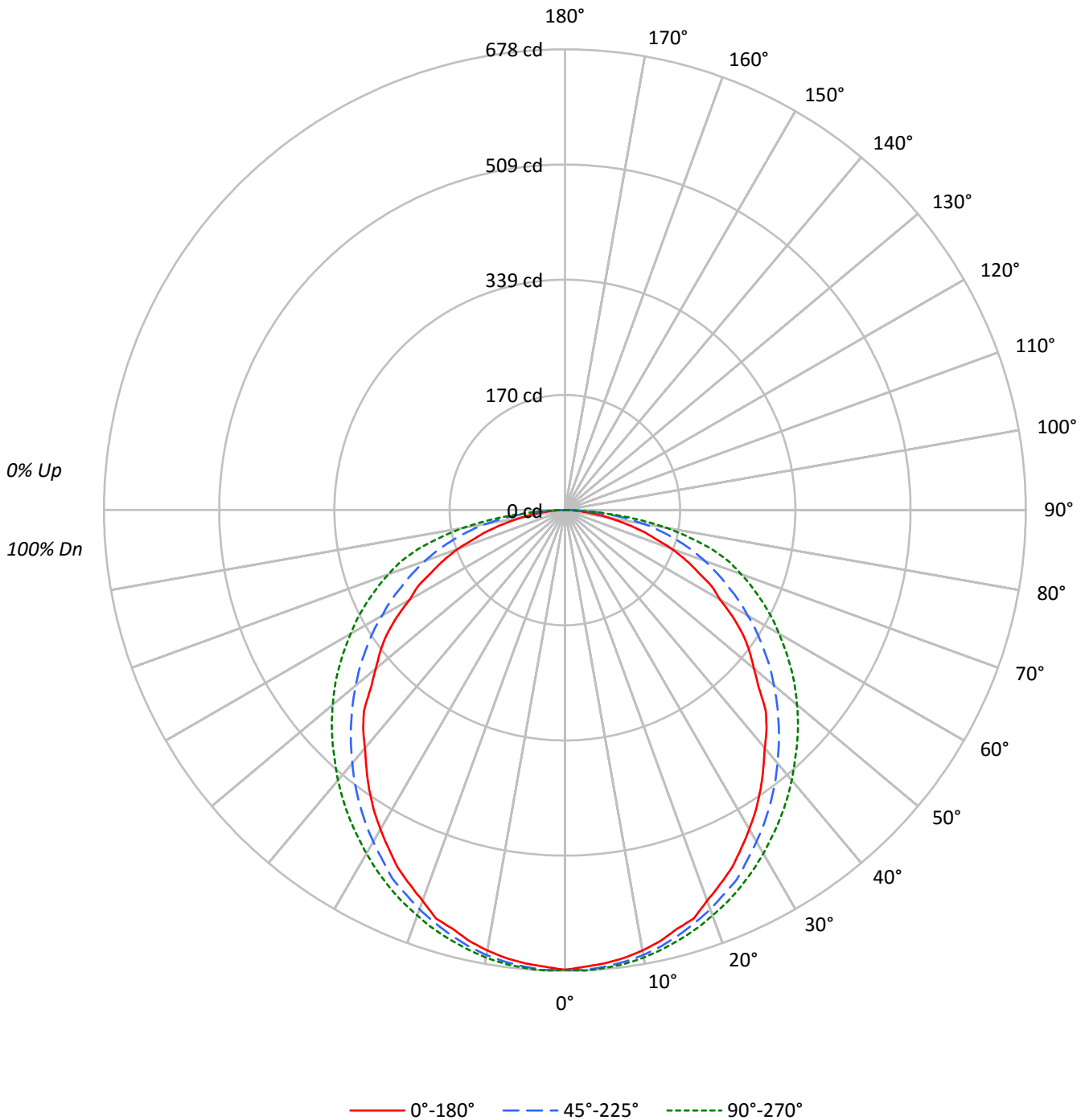
Input Watts (W): 17.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1820	1820	1820
5°	1809	1822	1827
10°	1798	1817	1827
15°	1777	1804	1823
20°	1752	1790	1818
25°	1725	1779	1816
30°	1685	1751	1814
35°	1648	1731	1816
40°	1607	1708	1824
45°	1590	1693	1840
50°	1519	1680	1866
55°	1503	1675	1906
60°	1418	1672	1958
65°	1376	1684	2046
70°	1321	1723	2172
75°	1204	1776	2337
80°	1032	1839	2363
85°	834	1757	2025



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.0	3.2
10°-20°	182.6	9.1
20°-30°	274.8	13.6
30°-40°	329.8	16.4
40°-50°	344.7	17.1
50°-60°	321.2	15.9
60°-70°	263.5	13.1
70°-80°	177.5	8.8
80°-90°	57.8	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°	521.4	25.9
0°-40°	851.2	42.2
0°-60°	1517.1	75.3
0°-90°	2016.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2016.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	676	676	676	676	676	
5°	670	672	674	675	676	64
15°	638	642	647	653	654	180
25°	581	585	599	608	612	267
35°	502	508	527	545	553	314
45°	418	421	445	472	483	319
55°	320	326	357	391	406	284
65°	216	226	264	303	321	215
75°	116	128	171	209	225	122
85°	27	39	57	67	66	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	676.4	676.4	676.4	676.4	676.4
2.5°	672.5	674.5	677.3	678.3	678.3
5°	669.6	671.6	674.5	675.4	676.4
7.5°	664.8	666.7	670.6	672.5	673.5
10°	658.1	660.0	664.8	667.7	668.7
12.5°	649.4	651.3	657.1	660.9	661.9
15°	637.8	641.6	647.4	653.2	654.2
17.5°	630.1	629.1	636.8	643.6	645.5
20°	611.7	616.6	625.2	633.0	634.9
22.5°	596.3	600.2	611.7	620.4	624.3
25°	580.9	584.7	599.2	607.9	611.7
27.5°	561.6	567.4	580.9	593.4	598.2
30°	542.3	548.1	563.5	578.0	583.8
32.5°	523.0	529.7	546.1	561.6	568.3
35°	501.7	508.5	526.8	545.2	552.9
37.5°	479.5	488.2	507.5	527.8	536.5
40°	457.4	466.0	486.3	509.5	519.1
42.5°	439.0	442.9	466.0	491.1	500.8
45°	417.8	420.7	444.8	471.8	483.4
47.5°	386.9	397.5	423.6	453.5	465.1
50°	362.8	374.4	401.4	433.2	445.8
52.5°	342.5	350.3	380.2	412.0	426.5
55°	320.3	326.1	357.0	390.8	406.2
57.5°	293.3	303.9	334.8	369.6	385.0
60°	263.4	276.9	310.7	348.3	363.8
62.5°	244.1	251.8	288.5	326.1	343.5
65°	216.1	225.8	264.4	303.0	321.3
67.5°	193.0	202.6	242.2	280.8	299.1
70°	167.9	177.5	219.0	257.6	276.0
72.5°	138.9	152.5	195.9	234.5	253.8
75°	115.8	128.3	170.8	209.4	224.8
77.5°	89.7	106.1	145.7	177.5	189.1
80°	66.6	83.0	118.7	141.8	152.5
82.5°	45.3	61.8	88.8	106.1	111.9
85°	27.0	38.6	56.9	66.6	65.6
87.5°	12.5	16.4	23.2	23.2	22.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)