

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: P308892

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-S-CP125-W2A-U-4500K**

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: P308892
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: 22FCZ2-20HE-UNV-L82765-S-CP125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH 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: 2036.0 lumens
Efficiency: N/A
Efficacy: 119.8 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

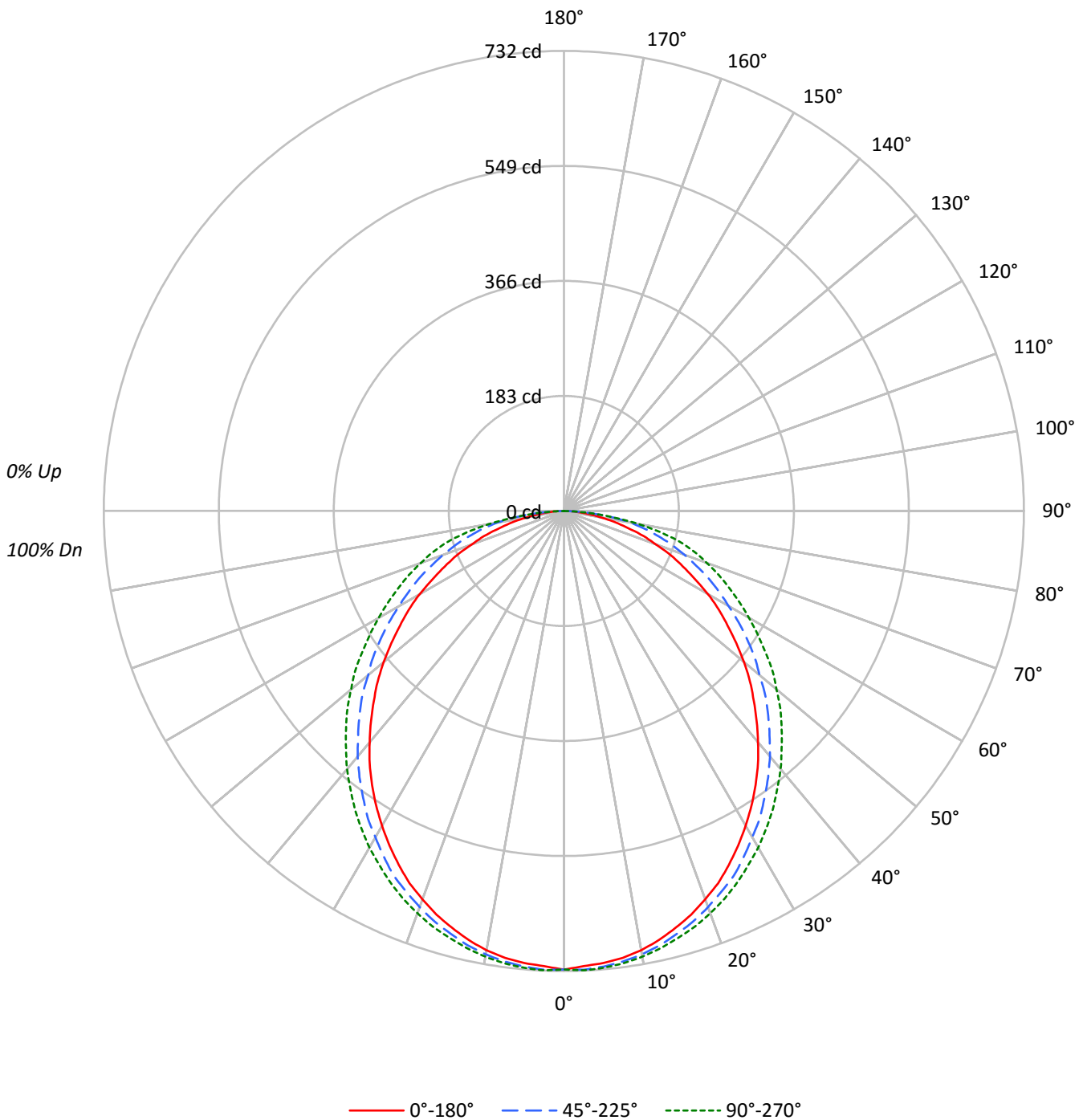
Input Watts (W): 17
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P308892

CATALOG NUMBER: 22FC22-20HE-UNV-L82765-S-CP125-W2A-U-4500K

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°	1963	1963	1963
5°	1950	1966	1971
10°	1939	1957	1968
15°	1913	1940	1958
20°	1883	1921	1950
25°	1845	1901	1938
30°	1798	1863	1922
35°	1748	1829	1904
40°	1689	1792	1885
45°	1627	1750	1866
50°	1567	1702	1849
55°	1493	1671	1836
60°	1426	1631	1830
65°	1331	1621	1851
70°	1226	1607	1906
75°	1106	1629	2005
80°	956	1678	1884
85°	790	1408	1408



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.0	3.4
10°-20°	196.3	9.6
20°-30°	293.8	14.4
30°-40°	347.9	17.1
40°-50°	354.6	17.4
50°-60°	317.8	15.6
60°-70°	248.8	12.2
70°-80°	160.4	7.9
80°-90°	47.4	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°	559.1	27.5
0°-40°	907.0	44.6
0°-60°	1579.4	77.6
0°-90°	2036.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2036.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	730	730	730	730	730	
5°	722	724	728	729	730	69
15°	687	691	696	702	703	194
25°	621	627	640	649	653	286
35°	532	539	557	574	580	332
45°	428	437	460	484	490	330
55°	318	329	356	381	391	285
65°	209	221	255	279	291	208
75°	106	122	157	183	193	114
85°	26	35	46	46	46	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	729.6	729.6	729.6	729.6	729.6
2.5°	724.8	726.7	730.5	731.5	731.5
5°	722.0	723.9	727.7	728.6	729.6
7.5°	717.2	718.2	722.9	724.8	725.8
10°	709.6	711.5	716.3	719.1	720.1
12.5°	699.2	702.0	707.7	711.5	712.5
15°	686.8	690.6	696.3	702.0	703.0
17.5°	673.5	677.3	684.9	691.6	693.5
20°	657.4	662.1	670.7	678.3	681.1
22.5°	641.2	645.0	655.5	665.0	667.8
25°	621.3	627.0	640.3	648.8	652.6
27.5°	600.4	607.0	620.3	631.7	635.5
30°	578.5	585.2	599.4	613.7	618.4
32.5°	555.7	563.3	580.4	594.7	599.4
35°	532.0	538.6	556.7	573.8	579.5
37.5°	507.3	513.0	533.9	551.9	557.6
40°	480.7	488.3	510.1	531.0	536.7
42.5°	454.1	462.6	484.5	507.3	513.0
45°	427.5	437.0	459.8	483.5	490.2
47.5°	401.8	409.4	435.1	457.9	467.4
50°	374.3	381.9	406.6	432.2	441.7
52.5°	345.8	356.2	382.8	407.5	418.9
55°	318.2	328.7	356.2	380.9	391.4
57.5°	292.6	301.1	329.6	355.3	365.7
60°	265.0	272.6	303.0	330.6	340.1
62.5°	235.6	247.0	278.3	304.0	315.4
65°	209.0	221.3	254.6	279.3	290.7
67.5°	184.3	195.7	228.0	254.6	266.9
70°	155.8	171.0	204.2	230.8	242.2
72.5°	133.0	146.3	180.5	207.1	219.4
75°	106.4	122.5	156.7	183.3	192.8
77.5°	84.5	100.7	133.0	153.9	158.6
80°	61.7	77.9	108.3	118.7	121.6
82.5°	41.8	57.0	77.9	80.7	81.7
85°	25.6	35.1	45.6	45.6	45.6
87.5°	12.3	14.2	16.1	15.2	15.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)