

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: P308935

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-S-CP125-W2A-U-3500K**

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: P308935
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-CP125-W2A-U-3500K
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: 2209.0 lumens
Efficiency: N/A
Efficacy: 116.3 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

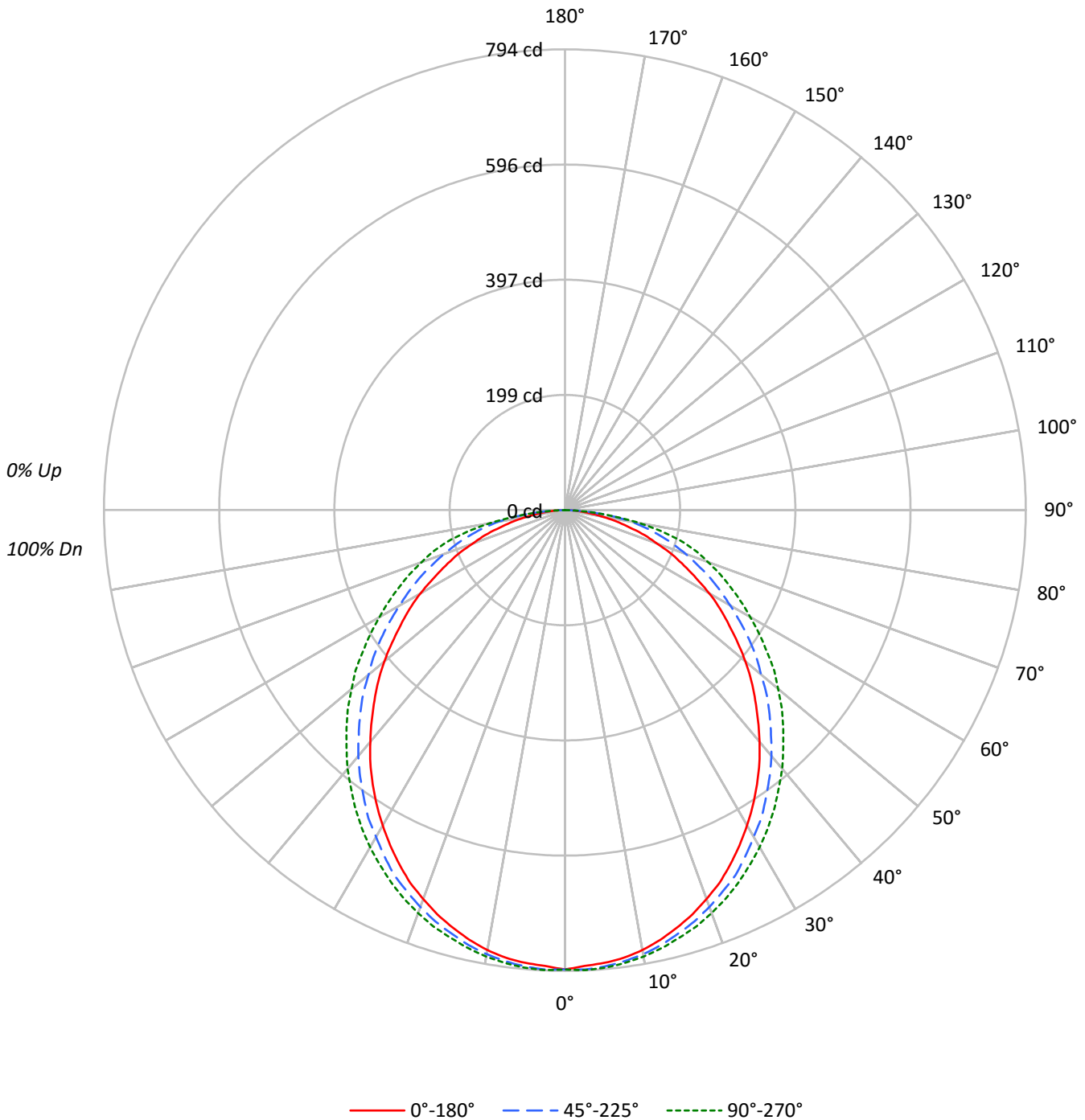
Input Watts (W): 19
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2130	2130	2130
5°	2116	2133	2138
10°	2104	2123	2135
15°	2076	2105	2125
20°	2042	2084	2116
25°	2002	2063	2102
30°	1950	2021	2085
35°	1896	1984	2065
40°	1832	1944	2046
45°	1765	1898	2024
50°	1700	1847	2007
55°	1620	1813	1992
60°	1548	1770	1986
65°	1443	1759	2008
70°	1330	1744	2068
75°	1200	1769	2175
80°	1038	1821	2044
85°	858	1528	1528



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.9	3.4
10°-20°	213.0	9.6
20°-30°	318.7	14.4
30°-40°	377.5	17.1
40°-50°	384.7	17.4
50°-60°	344.8	15.6
60°-70°	269.9	12.2
70°-80°	174.1	7.9
80°-90°	51.4	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°	606.6	27.5
0°-40°	984.1	44.5
0°-60°	1713.6	77.6
0°-90°	2209.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2209.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	792	792	792	792	792	
5°	783	785	790	790	792	74
15°	745	749	756	762	763	210
25°	674	680	695	704	708	310
35°	577	584	604	622	629	361
45°	464	474	499	525	532	358
55°	345	357	386	413	425	310
65°	227	240	276	303	315	225
75°	115	133	170	199	209	124
85°	28	38	50	50	50	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	791.6	791.6	791.6	791.6	791.6
2.5°	786.4	788.5	792.6	793.6	793.6
5°	783.3	785.4	789.5	790.5	791.6
7.5°	778.2	779.2	784.3	786.4	787.4
10°	769.9	772.0	777.1	780.2	781.2
12.5°	758.6	761.7	767.8	772.0	773.0
15°	745.2	749.3	755.5	761.7	762.7
17.5°	730.7	734.9	743.1	750.3	752.4
20°	713.2	718.4	727.7	735.9	739.0
22.5°	695.7	699.8	711.2	721.5	724.6
25°	674.1	680.2	694.7	703.9	708.1
27.5°	651.4	658.6	673.0	685.4	689.5
30°	627.7	634.9	650.4	665.8	671.0
32.5°	602.9	611.2	629.7	645.2	650.4
35°	577.2	584.4	604.0	622.5	628.7
37.5°	550.4	556.6	579.2	598.8	605.0
40°	521.5	529.8	553.5	576.1	582.3
42.5°	492.7	501.9	525.6	550.4	556.6
45°	463.8	474.1	498.8	524.6	531.8
47.5°	436.0	444.2	472.0	496.8	507.1
50°	406.1	414.3	441.1	469.0	479.3
52.5°	375.2	386.5	415.4	442.2	454.5
55°	345.3	356.6	386.5	413.3	424.6
57.5°	317.4	326.7	357.6	385.5	396.8
60°	287.6	295.8	328.8	358.7	369.0
62.5°	255.6	268.0	302.0	329.8	342.2
65°	226.7	240.1	276.2	303.0	315.4
67.5°	199.9	212.3	247.4	276.2	289.6
70°	169.0	185.5	221.6	250.5	262.8
72.5°	144.3	158.7	195.8	224.7	238.1
75°	115.4	133.0	170.1	198.9	209.2
77.5°	91.7	109.3	144.3	167.0	172.1
80°	67.0	84.5	117.5	128.8	131.9
82.5°	45.3	61.8	84.5	87.6	88.6
85°	27.8	38.1	49.5	49.5	49.5
87.5°	13.4	15.5	17.5	16.5	16.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)