

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: P308925

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-S-CA125-W2A-U-3000K**

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: P308925
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-3000K
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: 2178.0 lumens
Efficiency: N/A
Efficacy: 115.9 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

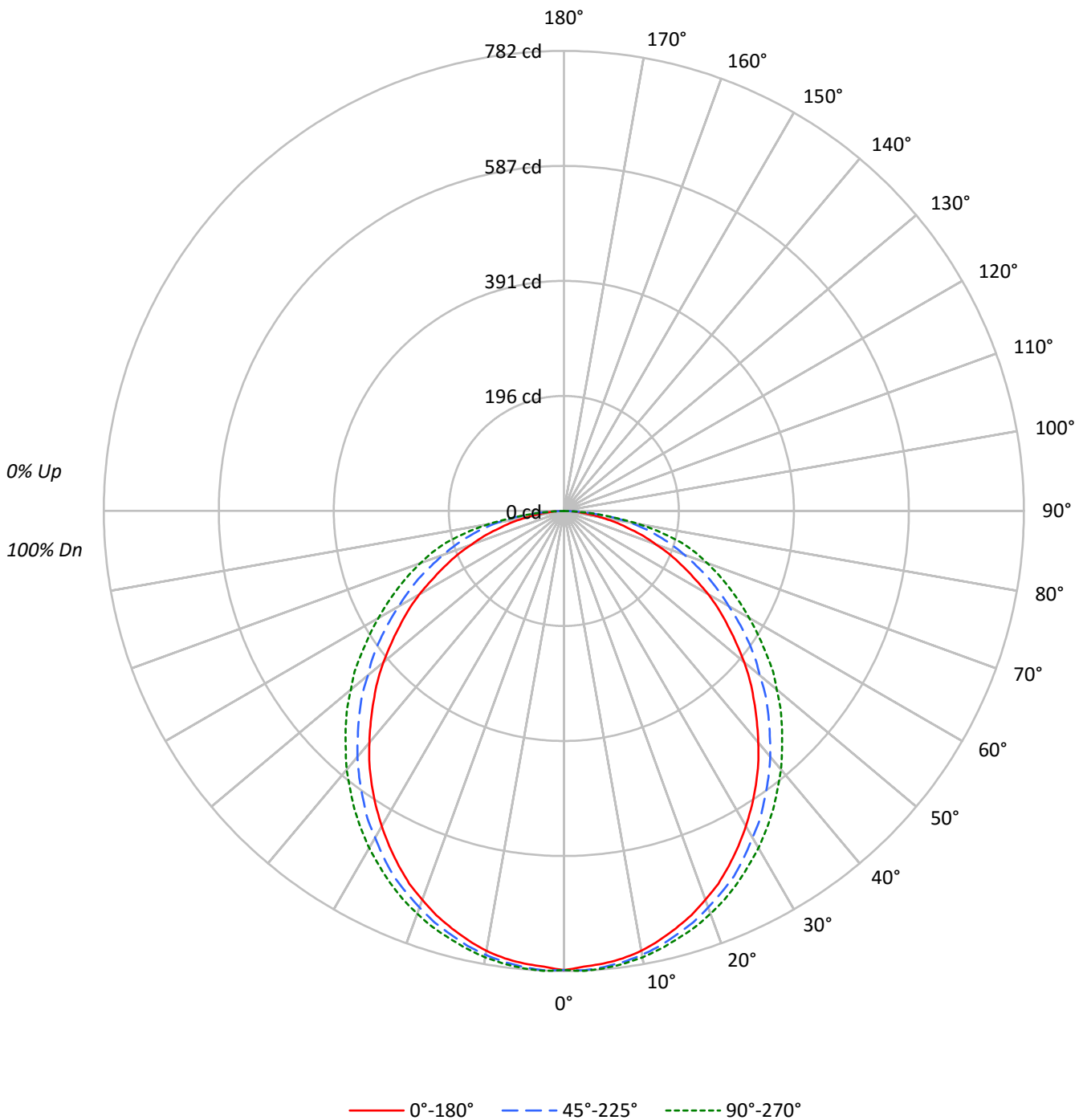
Input Watts (W): 18.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2100	2100	2100
5°	2086	2103	2108
10°	2074	2094	2105
15°	2047	2075	2095
20°	2014	2054	2086
25°	1973	2034	2073
30°	1923	1992	2055
35°	1870	1956	2036
40°	1806	1917	2017
45°	1740	1872	1996
50°	1676	1821	1978
55°	1597	1788	1964
60°	1526	1745	1958
65°	1424	1734	1980
70°	1312	1719	2039
75°	1183	1744	2145
80°	1024	1795	2016
85°	846	1507	1507



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.8	3.4
10°-20°	210.0	9.6
20°-30°	314.3	14.4
30°-40°	372.2	17.1
40°-50°	379.3	17.4
50°-60°	339.9	15.6
60°-70°	266.1	12.2
70°-80°	171.6	7.9
80°-90°	50.7	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°	598.1	27.5
0°-40°	970.3	44.5
0°-60°	1689.5	77.6
0°-90°	2178.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2178.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	780	780	780	780	780	
5°	772	774	778	779	780	73
15°	735	739	745	751	752	207
25°	665	671	685	694	698	306
35°	569	576	596	614	620	356
45°	457	468	492	517	524	353
55°	340	352	381	408	419	305
65°	224	237	272	299	311	222
75°	114	131	168	196	206	122
85°	27	38	49	49	49	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	780.4	780.4	780.4	780.4	780.4
2.5°	775.4	777.4	781.5	782.5	782.5
5°	772.3	774.3	778.4	779.4	780.4
7.5°	767.2	768.3	773.3	775.4	776.4
10°	759.1	761.1	766.2	769.3	770.3
12.5°	747.9	751.0	757.1	761.1	762.2
15°	734.7	738.8	744.9	751.0	752.0
17.5°	720.5	724.6	732.7	739.8	741.8
20°	703.2	708.3	717.4	725.6	728.6
22.5°	685.9	690.0	701.2	711.3	714.4
25°	664.6	670.7	684.9	694.1	698.1
27.5°	642.2	649.4	663.6	675.8	679.8
30°	618.9	626.0	641.2	656.5	661.5
32.5°	594.5	602.6	620.9	636.1	641.2
35°	569.1	576.2	595.5	613.8	619.9
37.5°	542.7	548.8	571.1	590.4	596.5
40°	514.2	522.3	545.7	568.1	574.2
42.5°	485.7	494.9	518.3	542.7	548.8
45°	457.3	467.5	491.8	517.2	524.4
47.5°	429.9	438.0	465.4	489.8	500.0
50°	400.4	408.5	434.9	462.4	472.5
52.5°	369.9	381.1	409.5	436.0	448.1
55°	340.4	351.6	381.1	407.5	418.7
57.5°	313.0	322.1	352.6	380.1	391.2
60°	283.5	291.7	324.2	353.6	363.8
62.5°	252.0	264.2	297.7	325.2	337.4
65°	223.6	236.8	272.3	298.8	311.0
67.5°	197.1	209.3	243.9	272.3	285.6
70°	166.7	182.9	218.5	246.9	259.1
72.5°	142.3	156.5	193.1	221.5	234.7
75°	113.8	131.1	167.7	196.1	206.3
77.5°	90.4	107.7	142.3	164.6	169.7
80°	66.1	83.3	115.8	127.0	130.1
82.5°	44.7	61.0	83.3	86.4	87.4
85°	27.4	37.6	48.8	48.8	48.8
87.5°	13.2	15.2	17.3	16.3	16.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)