

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: P308686

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-CP250-W2A-U-5000K**

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: P308686
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: 22FCZ2-24HE-UNV-L82765-CP250-W2A-U-5000K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.250" 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: 2097.0 lumens
Efficiency: N/A
Efficacy: 108.7 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

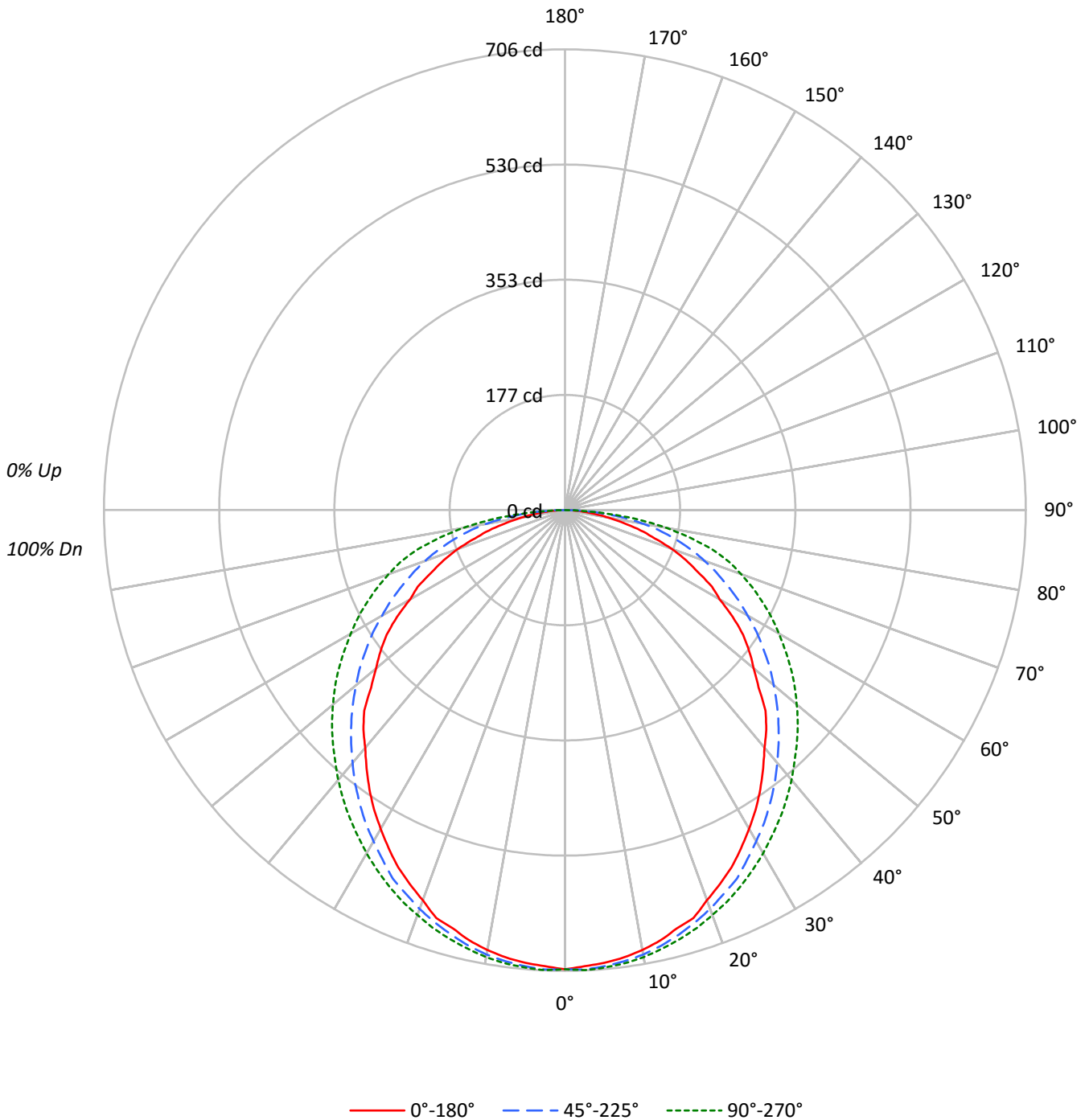
Input Watts (W): 19.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1893	1893	1893
5°	1881	1895	1901
10°	1870	1890	1900
15°	1848	1876	1896
20°	1822	1863	1891
25°	1794	1851	1889
30°	1753	1821	1887
35°	1714	1800	1889
40°	1671	1777	1897
45°	1654	1761	1913
50°	1580	1748	1941
55°	1563	1742	1982
60°	1475	1739	2037
65°	1431	1751	2128
70°	1374	1792	2258
75°	1252	1847	2432
80°	1074	1912	2458
85°	868	1828	2106



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.6	3.2
10°-20°	189.9	9.1
20°-30°	285.8	13.6
30°-40°	343.1	16.4
40°-50°	358.6	17.1
50°-60°	334.2	15.9
60°-70°	274.1	13.1
70°-80°	184.7	8.8
80°-90°	60.1	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°	542.3	25.9
0°-40°	885.4	42.2
0°-60°	1578.1	75.3
0°-90°	2097.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2097.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	704	704	704	704	704	
5°	696	698	702	703	704	66
15°	663	667	674	680	680	187
25°	604	608	623	632	636	278
35°	522	529	548	567	575	326
45°	435	438	463	491	503	332
55°	333	339	371	406	422	295
65°	225	235	275	315	334	224
75°	120	134	178	218	234	127
85°	28	40	59	69	68	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	703.6	703.6	703.6	703.6	703.6
2.5°	699.5	701.6	704.6	705.6	705.6
5°	696.5	698.5	701.6	702.6	703.6
7.5°	691.5	693.5	697.5	699.5	700.6
10°	684.5	686.5	691.5	694.5	695.5
12.5°	675.5	677.5	683.5	687.5	688.5
15°	663.4	667.4	673.5	679.5	680.5
17.5°	655.4	654.4	662.4	669.4	671.4
20°	636.3	641.3	650.4	658.4	660.4
22.5°	620.3	624.3	636.3	645.3	649.4
25°	604.2	608.2	623.3	632.3	636.3
27.5°	584.1	590.1	604.2	617.2	622.3
30°	564.1	570.1	586.1	601.2	607.2
32.5°	544.0	551.0	568.1	584.1	591.2
35°	521.9	528.9	548.0	567.1	575.1
37.5°	498.8	507.8	527.9	549.0	558.0
40°	475.7	484.8	505.8	529.9	540.0
42.5°	456.7	460.7	484.8	510.9	520.9
45°	434.6	437.6	462.7	490.8	502.8
47.5°	402.5	413.5	440.6	471.7	483.8
50°	377.4	389.4	417.5	450.6	463.7
52.5°	356.3	364.3	395.4	428.6	443.6
55°	333.2	339.2	371.4	406.5	422.5
57.5°	305.1	316.2	348.3	384.4	400.5
60°	274.0	288.0	323.2	362.3	378.4
62.5°	253.9	262.0	300.1	339.2	357.3
65°	224.8	234.9	275.0	315.1	334.2
67.5°	200.7	210.8	251.9	292.1	311.1
70°	174.6	184.7	227.8	268.0	287.0
72.5°	144.5	158.6	203.7	243.9	264.0
75°	120.4	133.5	177.6	217.8	233.9
77.5°	93.3	110.4	151.6	184.7	196.7
80°	69.3	86.3	123.4	147.5	158.6
82.5°	47.2	64.2	92.3	110.4	116.4
85°	28.1	40.1	59.2	69.3	68.2
87.5°	13.0	17.1	24.1	24.1	23.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)