

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: P308682

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-CP250-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: P308682
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-3000K
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: 1924.0 lumens
Efficiency: N/A
Efficacy: 102.3 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

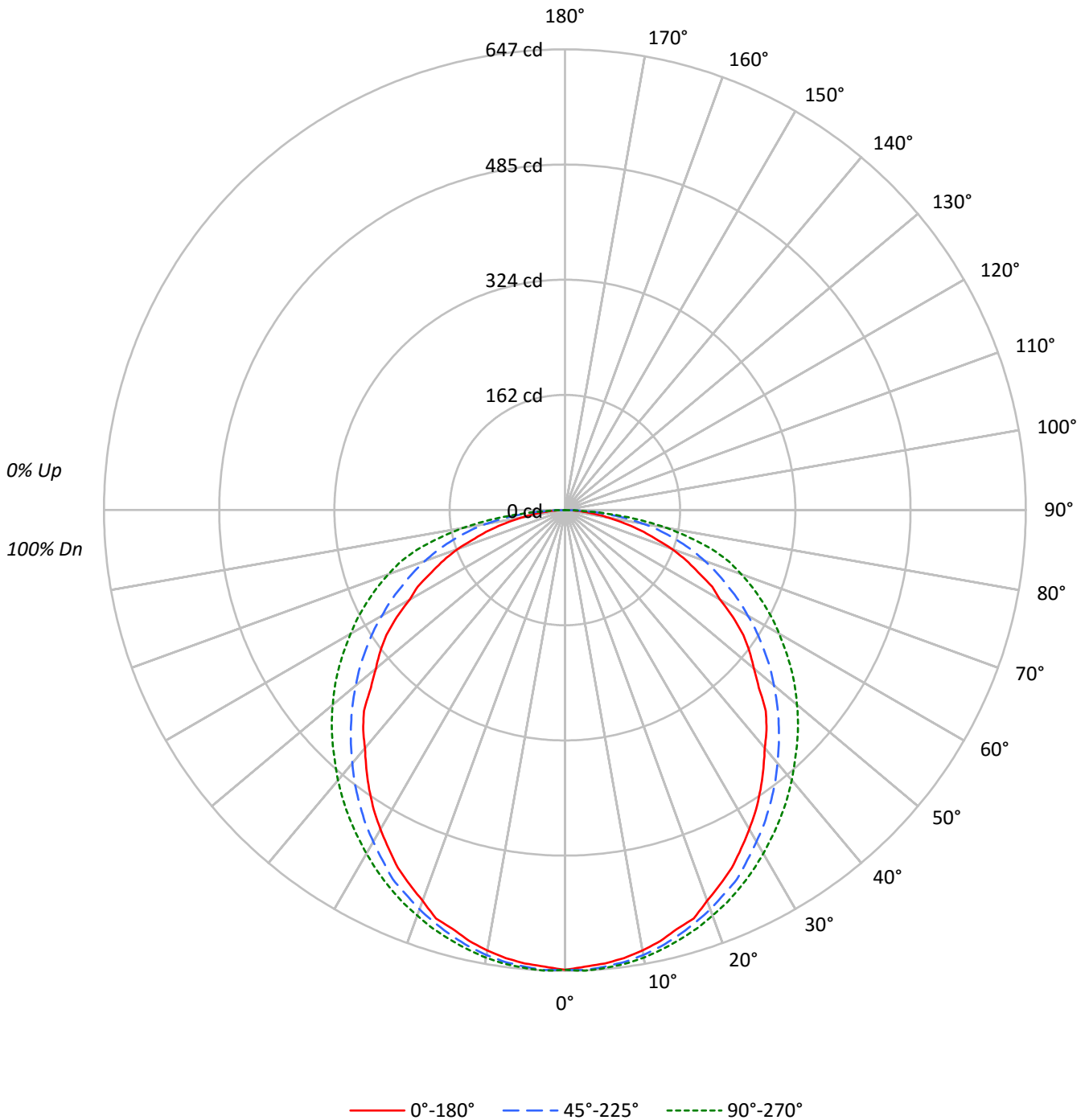
Input Watts (W): 18.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1737	1737	1737
5°	1726	1739	1744
10°	1716	1734	1744
15°	1696	1721	1739
20°	1672	1709	1735
25°	1646	1698	1733
30°	1608	1671	1731
35°	1573	1652	1733
40°	1533	1630	1740
45°	1517	1615	1756
50°	1449	1604	1781
55°	1434	1598	1819
60°	1353	1596	1869
65°	1314	1606	1952
70°	1260	1644	2072
75°	1149	1695	2231
80°	984	1756	2255
85°	797	1677	1933



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.1	3.2
10°-20°	174.3	9.1
20°-30°	262.3	13.6
30°-40°	314.8	16.4
40°-50°	329.0	17.1
50°-60°	306.6	15.9
60°-70°	251.4	13.1
70°-80°	169.4	8.8
80°-90°	55.2	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°	497.6	25.9
0°-40°	812.3	42.2
0°-60°	1447.9	75.3
0°-90°	1924.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1924.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	646	646	646	646	646	
5°	639	641	644	645	646	61
15°	609	612	618	623	624	172
25°	554	558	572	580	584	255
35°	479	485	503	520	528	299
45°	399	402	424	450	461	305
55°	306	311	341	373	388	271
65°	206	216	252	289	307	205
75°	110	122	163	200	215	116
85°	26	37	54	64	63	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	645.5	645.5	645.5	645.5	645.5
2.5°	641.8	643.7	646.4	647.4	647.4
5°	639.1	640.9	643.7	644.6	645.5
7.5°	634.5	636.3	640.0	641.8	642.8
10°	628.0	629.9	634.5	637.2	638.2
12.5°	619.7	621.6	627.1	630.8	631.7
15°	608.7	612.4	617.9	623.4	624.3
17.5°	601.3	600.4	607.8	614.2	616.1
20°	583.8	588.4	596.7	604.1	605.9
22.5°	569.1	572.8	583.8	592.1	595.8
25°	554.4	558.0	571.9	580.1	583.8
27.5°	535.9	541.5	554.4	566.3	570.9
30°	517.5	523.0	537.8	551.6	557.1
32.5°	499.1	505.5	521.2	535.9	542.4
35°	478.8	485.3	502.8	520.3	527.6
37.5°	457.7	466.0	484.4	503.7	512.0
40°	436.5	444.8	464.1	486.2	495.4
42.5°	419.0	422.7	444.8	468.7	477.9
45°	398.7	401.5	424.5	450.3	461.3
47.5°	369.3	379.4	404.3	432.8	443.9
50°	346.2	357.3	383.1	413.5	425.4
52.5°	326.9	334.3	362.8	393.2	407.0
55°	305.7	311.2	340.7	372.9	387.7
57.5°	279.9	290.1	319.5	352.7	367.4
60°	251.4	264.3	296.5	332.4	347.2
62.5°	233.0	240.3	275.3	311.2	327.8
65°	206.3	215.5	252.3	289.1	306.6
67.5°	184.2	193.4	231.1	268.0	285.5
70°	160.2	169.4	209.0	245.9	263.4
72.5°	132.6	145.5	186.9	223.8	242.2
75°	110.5	122.5	163.0	199.8	214.6
77.5°	85.6	101.3	139.0	169.4	180.5
80°	63.5	79.2	113.3	135.4	145.5
82.5°	43.3	58.9	84.7	101.3	106.8
85°	25.8	36.8	54.3	63.5	62.6
87.5°	12.0	15.7	22.1	22.1	21.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)