

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: P308675

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-CP187-W2A-U-4000K**

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: P308675
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-CP187-W2A-U-4000K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.187" 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: 2051.0 lumens
Efficiency: N/A
Efficacy: 107.4 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

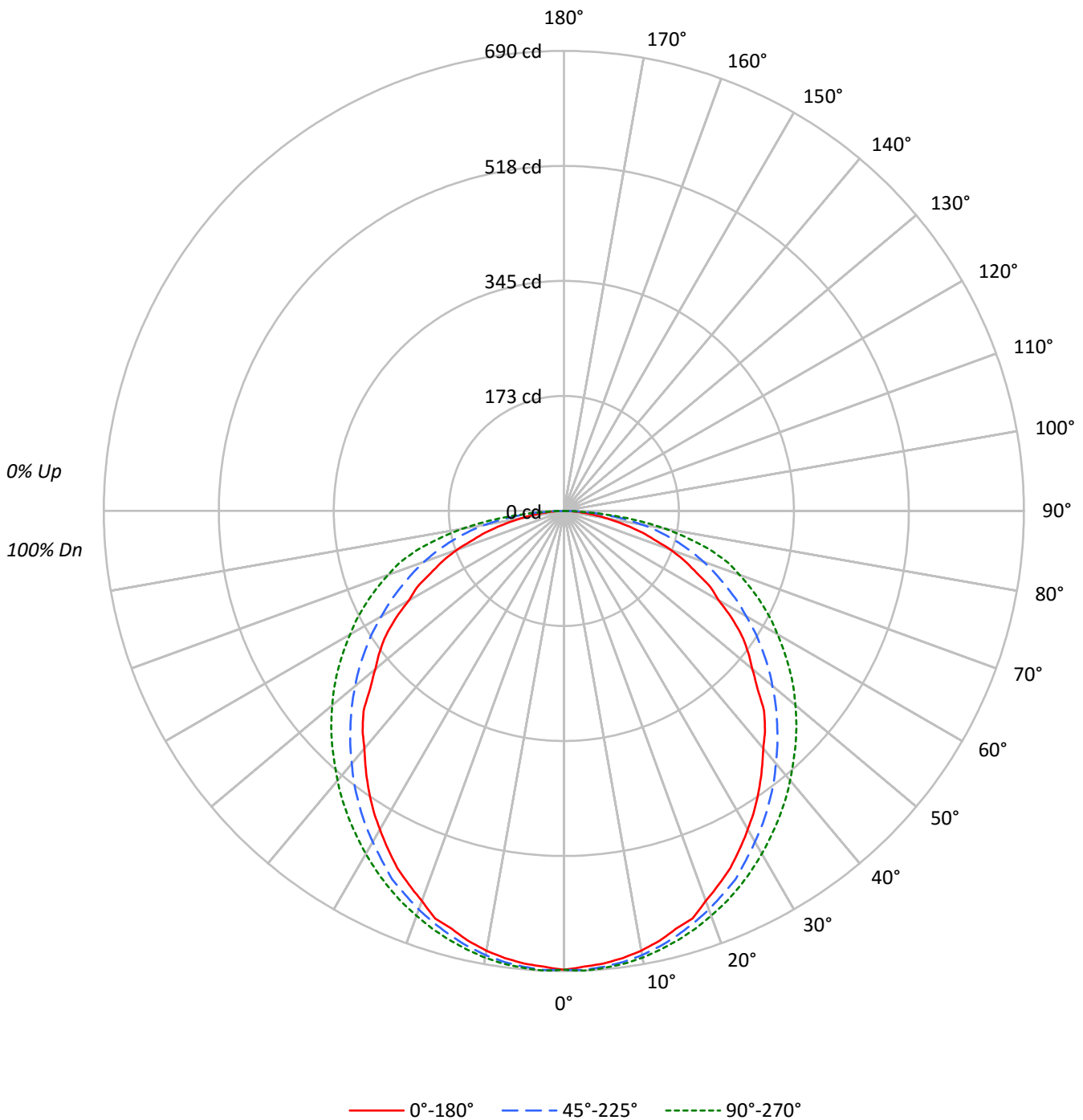
Input Watts (W): 19.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1852	1852	1852
5°	1840	1854	1859
10°	1829	1848	1859
15°	1808	1835	1854
20°	1782	1822	1850
25°	1754	1810	1848
30°	1714	1781	1845
35°	1677	1761	1848
40°	1635	1738	1855
45°	1617	1722	1872
50°	1545	1710	1899
55°	1529	1704	1939
60°	1442	1701	1992
65°	1400	1713	2082
70°	1344	1753	2209
75°	1225	1806	2378
80°	1049	1870	2404
85°	849	1788	2062



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.1	3.2
10°-20°	185.8	9.1
20°-30°	279.6	13.6
30°-40°	335.5	16.4
40°-50°	350.7	17.1
50°-60°	326.8	15.9
60°-70°	268.1	13.1
70°-80°	180.6	8.8
80°-90°	58.8	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°	530.4	25.9
0°-40°	866.0	42.2
0°-60°	1543.5	75.3
0°-90°	2051.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2051.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	688	688	688	688	688	
5°	681	683	686	687	688	65
15°	649	653	659	665	666	183
25°	591	595	610	618	622	272
35°	510	517	536	555	562	319
45°	425	428	452	480	492	325
55°	326	332	363	398	413	289
65°	220	230	269	308	327	219
75°	118	131	174	213	229	124
85°	28	39	58	68	67	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	688.1	688.1	688.1	688.1	688.1
2.5°	684.2	686.2	689.1	690.1	690.1
5°	681.3	683.2	686.2	687.1	688.1
7.5°	676.3	678.3	682.2	684.2	685.2
10°	669.5	671.4	676.3	679.3	680.3
12.5°	660.6	662.6	668.5	672.4	673.4
15°	648.9	652.8	658.7	664.6	665.6
17.5°	641.0	640.0	647.9	654.8	656.7
20°	622.4	627.3	636.1	644.0	645.9
22.5°	606.7	610.6	622.4	631.2	635.1
25°	590.9	594.9	609.6	618.4	622.4
27.5°	571.3	577.2	590.9	603.7	608.6
30°	551.7	557.6	573.3	588.0	593.9
32.5°	532.0	538.9	555.6	571.3	578.2
35°	510.5	517.3	536.0	554.6	562.5
37.5°	487.9	496.7	516.3	537.0	545.8
40°	465.3	474.1	494.7	518.3	528.1
42.5°	446.6	450.6	474.1	499.7	509.5
45°	425.0	428.0	452.5	480.0	491.8
47.5°	393.6	404.4	430.9	461.4	473.1
50°	369.1	380.9	408.4	440.8	453.5
52.5°	348.5	356.3	386.8	419.2	433.9
55°	325.9	331.8	363.2	397.6	413.3
57.5°	298.4	309.2	340.6	376.0	391.7
60°	268.0	281.7	316.1	354.4	370.1
62.5°	248.4	256.2	293.5	331.8	349.5
65°	219.9	229.7	269.0	308.2	326.9
67.5°	196.3	206.1	246.4	285.7	304.3
70°	170.8	180.6	222.8	262.1	280.7
72.5°	141.4	155.1	199.3	238.5	258.2
75°	117.8	130.6	173.7	213.0	228.7
77.5°	91.3	108.0	148.2	180.6	192.4
80°	67.7	84.4	120.7	144.3	155.1
82.5°	46.1	62.8	90.3	108.0	113.9
85°	27.5	39.3	57.9	67.7	66.8
87.5°	12.8	16.7	23.6	23.6	22.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)