

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: P308664

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-CP125-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: P308664
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-CP125-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, RIBBED 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: 2025.0 lumens
Efficiency: N/A
Efficacy: 107.7 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

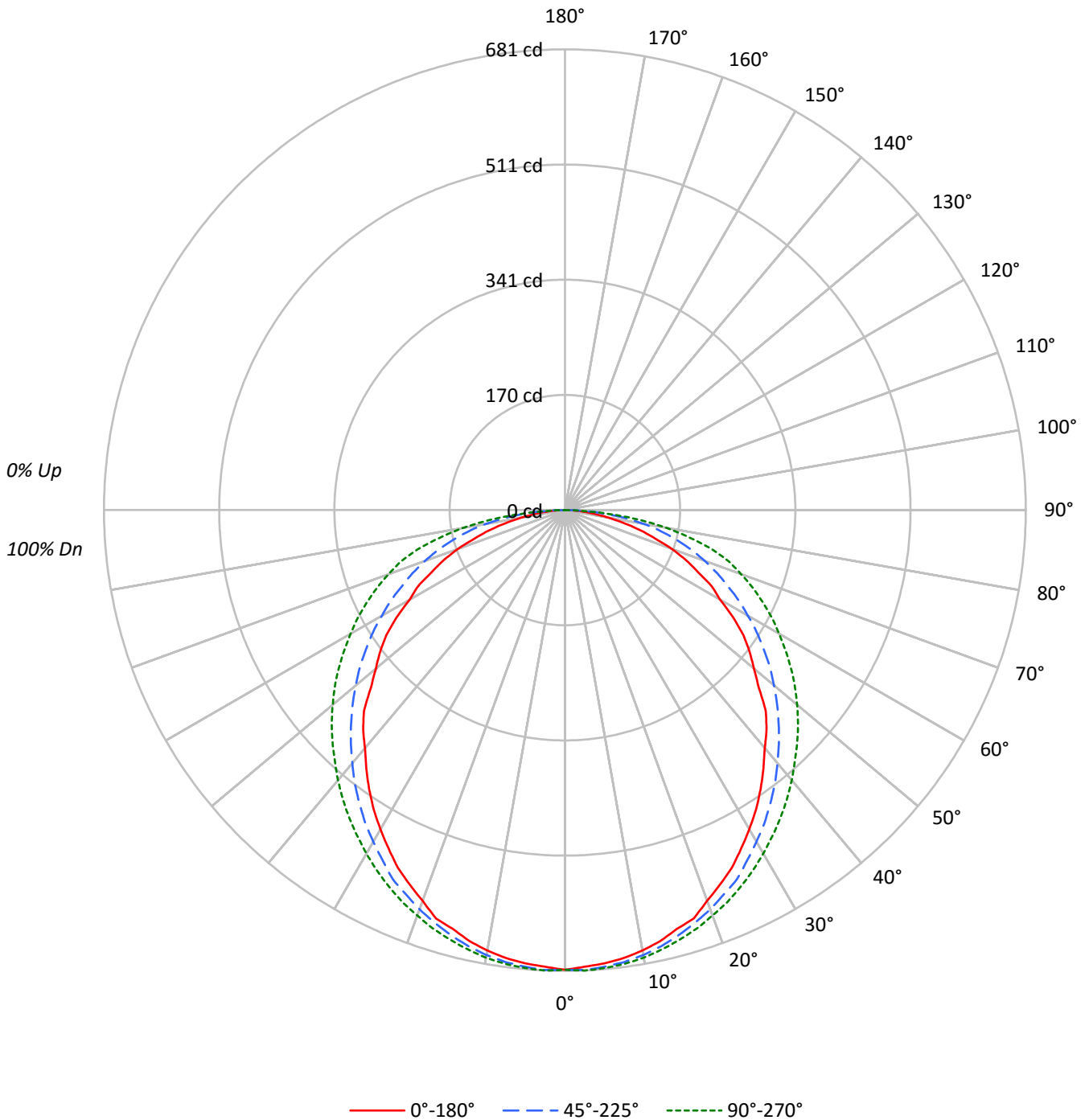
Input Watts (W): 18.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1828	1828	1828
5°	1817	1830	1835
10°	1806	1825	1835
15°	1785	1812	1831
20°	1760	1798	1826
25°	1733	1787	1825
30°	1693	1759	1822
35°	1656	1738	1824
40°	1614	1716	1832
45°	1597	1700	1848
50°	1526	1688	1875
55°	1510	1682	1914
60°	1424	1680	1967
65°	1382	1691	2055
70°	1327	1731	2181
75°	1209	1783	2348
80°	1037	1847	2373
85°	837	1766	2035



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.3	3.2
10°-20°	183.4	9.1
20°-30°	276.0	13.6
30°-40°	331.3	16.4
40°-50°	346.3	17.1
50°-60°	322.7	15.9
60°-70°	264.7	13.1
70°-80°	178.3	8.8
80°-90°	58.1	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°	523.7	25.9
0°-40°	855.0	42.2
0°-60°	1523.9	75.3
0°-90°	2025.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2025.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	679	679	679	679	679	
5°	673	675	678	678	679	64
15°	641	644	650	656	657	181
25°	584	587	602	611	614	268
35°	504	511	529	548	555	315
45°	420	423	447	474	486	321
55°	322	328	359	392	408	285
65°	217	227	266	304	323	216
75°	116	129	172	210	226	122
85°	27	39	57	67	66	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	679.4	679.4	679.4	679.4	679.4
2.5°	675.5	677.5	680.4	681.3	681.3
5°	672.6	674.6	677.5	678.4	679.4
7.5°	667.8	669.7	673.6	675.5	676.5
10°	661.0	662.9	667.8	670.7	671.7
12.5°	652.3	654.2	660.0	663.9	664.9
15°	640.6	644.5	650.3	656.1	657.1
17.5°	632.9	631.9	639.7	646.5	648.4
20°	614.5	619.3	628.0	635.8	637.7
22.5°	599.0	602.8	614.5	623.2	627.1
25°	583.5	587.3	601.9	610.6	614.5
27.5°	564.1	569.9	583.5	596.1	600.9
30°	544.7	550.5	566.0	580.5	586.4
32.5°	525.3	532.1	548.6	564.1	570.9
35°	504.0	510.8	529.2	547.6	555.3
37.5°	481.7	490.4	509.8	530.1	538.9
40°	459.4	468.1	488.5	511.7	521.4
42.5°	441.0	444.9	468.1	493.3	503.0
45°	419.7	422.6	446.8	473.9	485.6
47.5°	388.6	399.3	425.5	455.5	467.2
50°	364.4	376.0	403.2	435.2	447.8
52.5°	344.1	351.8	381.9	413.8	428.4
55°	321.8	327.6	358.6	392.5	408.0
57.5°	294.6	305.3	336.3	371.2	386.7
60°	264.6	278.2	312.1	349.9	365.4
62.5°	245.2	253.0	289.8	327.6	345.0
65°	217.1	226.8	265.6	304.3	322.7
67.5°	193.8	203.5	243.3	282.0	300.5
70°	168.6	178.3	220.0	258.8	277.2
72.5°	139.6	153.1	196.7	235.5	254.9
75°	116.3	128.9	171.5	210.3	225.8
77.5°	90.1	106.6	146.3	178.3	190.0
80°	66.9	83.4	119.2	142.5	153.1
82.5°	45.6	62.0	89.2	106.6	112.4
85°	27.1	38.8	57.2	66.9	65.9
87.5°	12.6	16.5	23.3	23.3	22.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)