

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: P308655

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-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: P308655
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-CA125-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, RIBBED 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

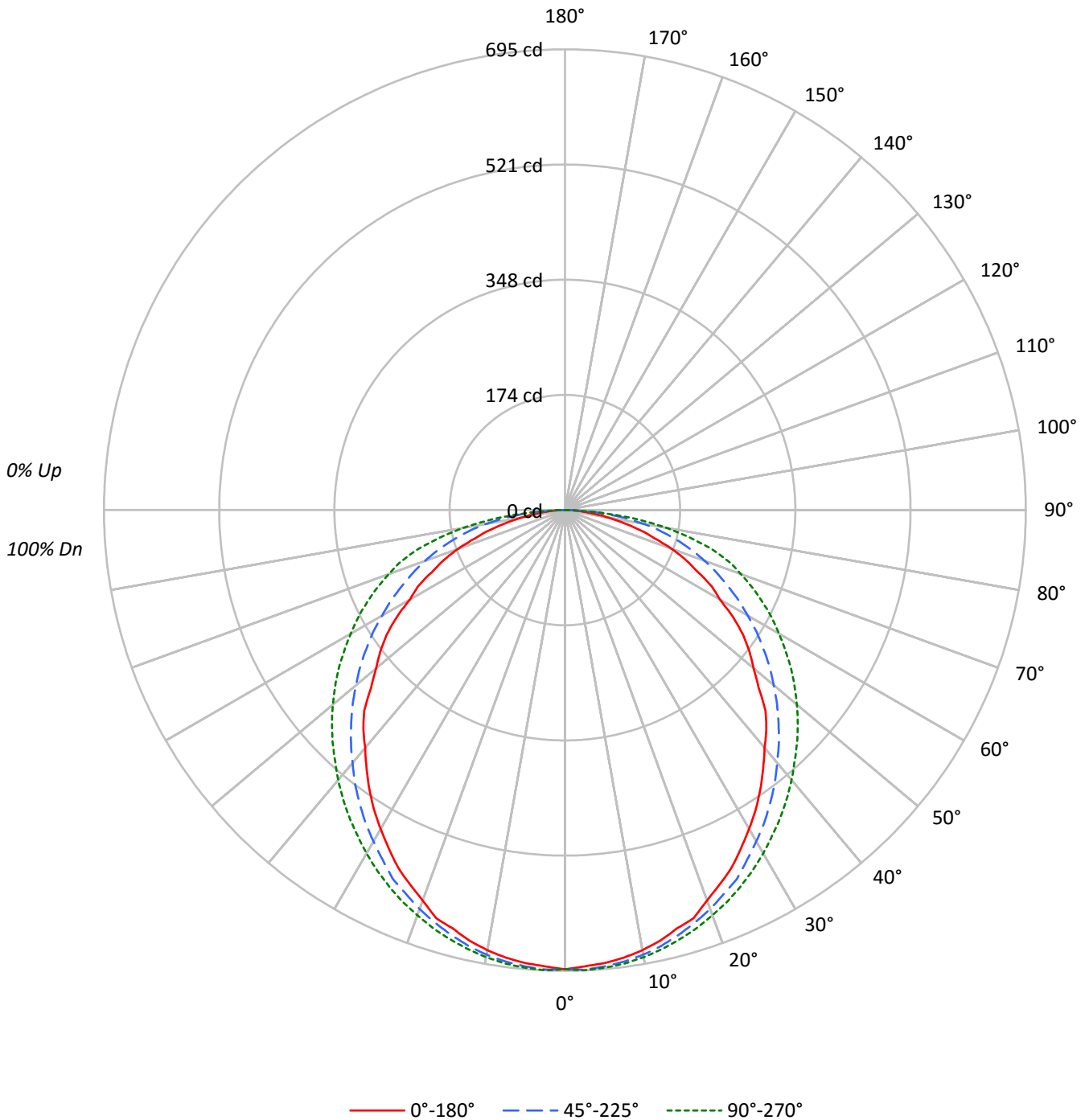
Lumens per Lamp: N/A
Luminaire Lumens: 2065.0 lumens
Efficiency: N/A
Efficacy: 109.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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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CATALOG NUMBER: 22FC22-24HE-UNV-L82765-CA125-W2A-U-3000K

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°	1864	1864	1864
5°	1853	1866	1871
10°	1842	1861	1871
15°	1820	1848	1867
20°	1794	1834	1862
25°	1767	1822	1860
30°	1726	1794	1858
35°	1688	1773	1860
40°	1646	1750	1868
45°	1629	1734	1885
50°	1556	1721	1912
55°	1539	1716	1952
60°	1452	1713	2005
65°	1410	1724	2096
70°	1353	1766	2224
75°	1233	1818	2394
80°	1057	1884	2421
85°	855	1800	2075



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.6	3.2
10°-20°	187.0	9.1
20°-30°	281.5	13.6
30°-40°	337.8	16.4
40°-50°	353.1	17.1
50°-60°	329.1	15.9
60°-70°	269.9	13.1
70°-80°	181.9	8.8
80°-90°	59.2	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°	534.0	25.9
0°-40°	871.9	42.2
0°-60°	1554.0	75.3
0°-90°	2065.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2065.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	693	693	693	693	693	
5°	686	688	691	692	693	65
15°	653	657	663	669	670	185
25°	595	599	614	623	627	274
35°	514	521	540	558	566	321
45°	428	431	456	483	495	327
55°	328	334	366	400	416	291
65°	221	231	271	310	329	220
75°	119	131	175	214	230	125
85°	28	40	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°	692.8	692.8	692.8	692.8	692.8
2.5°	688.9	690.8	693.8	694.8	694.8
5°	685.9	687.9	690.8	691.8	692.8
7.5°	681.0	682.9	686.9	688.9	689.9
10°	674.0	676.0	681.0	683.9	684.9
12.5°	665.2	667.1	673.1	677.0	678.0
15°	653.3	657.2	663.2	669.1	670.1
17.5°	645.4	644.4	652.3	659.2	661.2
20°	626.6	631.5	640.4	648.3	650.3
22.5°	610.8	614.7	626.6	635.5	639.5
25°	595.0	598.9	613.8	622.7	626.6
27.5°	575.2	581.1	595.0	607.8	612.8
30°	555.4	561.4	577.2	592.0	597.9
32.5°	535.7	542.6	559.4	575.2	582.1
35°	513.9	520.9	539.6	558.4	566.3
37.5°	491.2	500.1	519.9	540.6	549.5
40°	468.5	477.4	498.1	521.8	531.7
42.5°	449.7	453.6	477.4	503.1	512.9
45°	428.0	430.9	455.6	483.3	495.2
47.5°	396.3	407.2	433.9	464.5	476.4
50°	371.6	383.5	411.1	443.8	456.6
52.5°	350.9	358.8	389.4	422.0	436.8
55°	328.1	334.1	365.7	400.3	416.1
57.5°	300.5	311.3	343.0	378.5	394.3
60°	269.8	283.7	318.2	356.8	372.6
62.5°	250.0	258.0	295.5	334.1	351.8
65°	221.4	231.3	270.8	310.3	329.1
67.5°	197.7	207.6	248.1	287.6	306.4
70°	172.0	181.9	224.4	263.9	282.7
72.5°	142.3	156.2	200.6	240.2	259.9
75°	118.6	131.4	174.9	214.5	230.3
77.5°	91.9	108.7	149.2	181.9	193.7
80°	68.2	85.0	121.6	145.3	156.2
82.5°	46.5	63.3	90.9	108.7	114.6
85°	27.7	39.5	58.3	68.2	67.2
87.5°	12.8	16.8	23.7	23.7	22.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)