

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: P308670

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-CP125-W2A-U-5700K**

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: P308670
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-5700K
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: 2236.0 lumens
Efficiency: N/A
Efficacy: 115.3 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

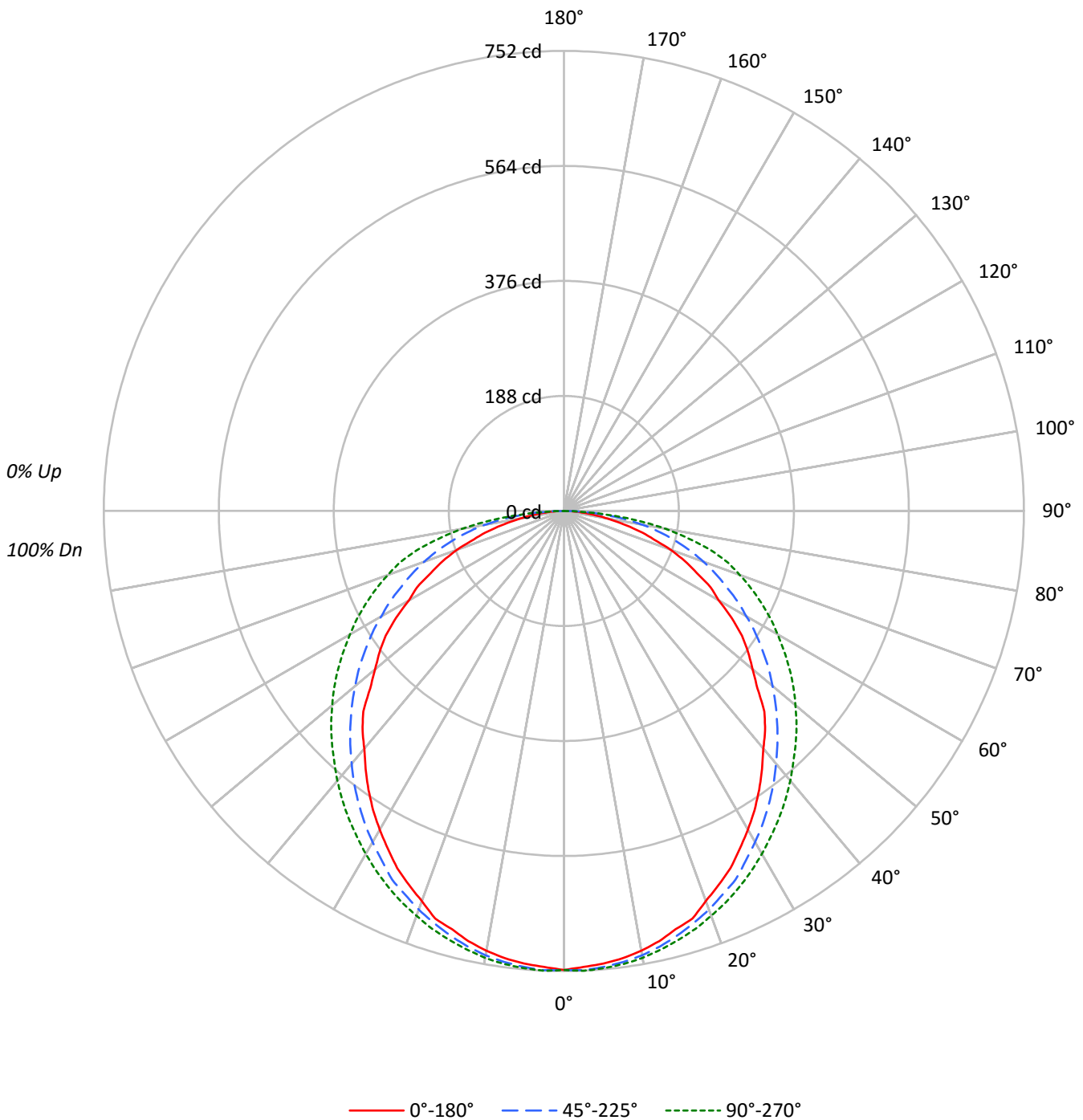
Input Watts (W): 19.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82					82			
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67					67			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56					56			
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48					48			
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41					41			
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36					36			
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32					32			
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28					28			
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25					25			
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23					23			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2019	2019	2019
5°	2006	2021	2026
10°	1994	2015	2026
15°	1971	2001	2021
20°	1943	1986	2017
25°	1913	1973	2015
30°	1869	1942	2012
35°	1828	1919	2014
40°	1782	1895	2023
45°	1764	1878	2041
50°	1685	1864	2070
55°	1667	1858	2114
60°	1573	1855	2172
65°	1526	1867	2269
70°	1465	1911	2408
75°	1335	1969	2593
80°	1144	2039	2620
85°	926	1948	2248



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.0	3.2
10°-20°	202.5	9.1
20°-30°	304.8	13.6
30°-40°	365.8	16.4
40°-50°	382.3	17.1
50°-60°	356.3	15.9
60°-70°	292.2	13.1
70°-80°	196.9	8.8
80°-90°	64.1	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°	578.3	25.9
0°-40°	944.1	42.2
0°-60°	1682.7	75.3
0°-90°	2236.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2236.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	750	750	750	750	750	
5°	743	745	748	749	750	70
15°	707	712	718	724	726	200
25°	644	648	665	674	678	296
35°	556	564	584	605	613	348
45°	463	467	493	523	536	354
55°	355	362	396	433	450	315
65°	240	250	293	336	356	238
75°	128	142	189	232	249	135
85°	30	43	63	74	73	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	750.2	750.2	750.2	750.2	750.2
2.5°	745.9	748.1	751.3	752.3	752.3
5°	742.7	744.8	748.1	749.1	750.2
7.5°	737.4	739.5	743.8	745.9	747.0
10°	729.9	732.0	737.4	740.6	741.6
12.5°	720.2	722.4	728.8	733.1	734.1
15°	707.4	711.7	718.1	724.5	725.6
17.5°	698.8	697.8	706.3	713.8	716.0
20°	678.5	683.8	693.5	702.0	704.2
22.5°	661.4	665.7	678.5	688.1	692.4
25°	644.2	648.5	664.6	674.2	678.5
27.5°	622.8	629.3	644.2	658.2	663.5
30°	601.4	607.9	625.0	641.0	647.5
32.5°	580.0	587.5	605.7	622.8	630.3
35°	556.5	564.0	584.3	604.7	613.2
37.5°	531.9	541.5	562.9	585.4	595.0
40°	507.3	516.9	539.4	565.1	575.8
42.5°	486.9	491.2	516.9	544.7	555.4
45°	463.4	466.6	493.4	523.3	536.2
47.5°	429.1	440.9	469.8	503.0	515.8
50°	402.4	415.2	445.2	480.5	494.4
52.5°	379.9	388.5	421.7	457.0	473.0
55°	355.3	361.7	396.0	433.4	450.5
57.5°	325.3	337.1	371.4	409.9	427.0
60°	292.2	307.1	344.6	386.3	403.5
62.5°	270.8	279.3	320.0	361.7	381.0
65°	239.7	250.4	293.2	336.0	356.4
67.5°	214.0	224.7	268.6	311.4	331.8
70°	186.2	196.9	242.9	285.7	306.1
72.5°	154.1	169.1	217.2	260.1	281.5
75°	128.4	142.3	189.4	232.2	249.4
77.5°	99.5	117.7	161.6	196.9	209.8
80°	73.8	92.0	131.6	157.3	169.1
82.5°	50.3	68.5	98.5	117.7	124.1
85°	30.0	42.8	63.1	73.8	72.8
87.5°	13.9	18.2	25.7	25.7	24.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)