

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: P308667

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-CP125-W2A-U-4500K**

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: P308667
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-4500K
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: 2179.0 lumens
Efficiency: N/A
Efficacy: 112.9 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

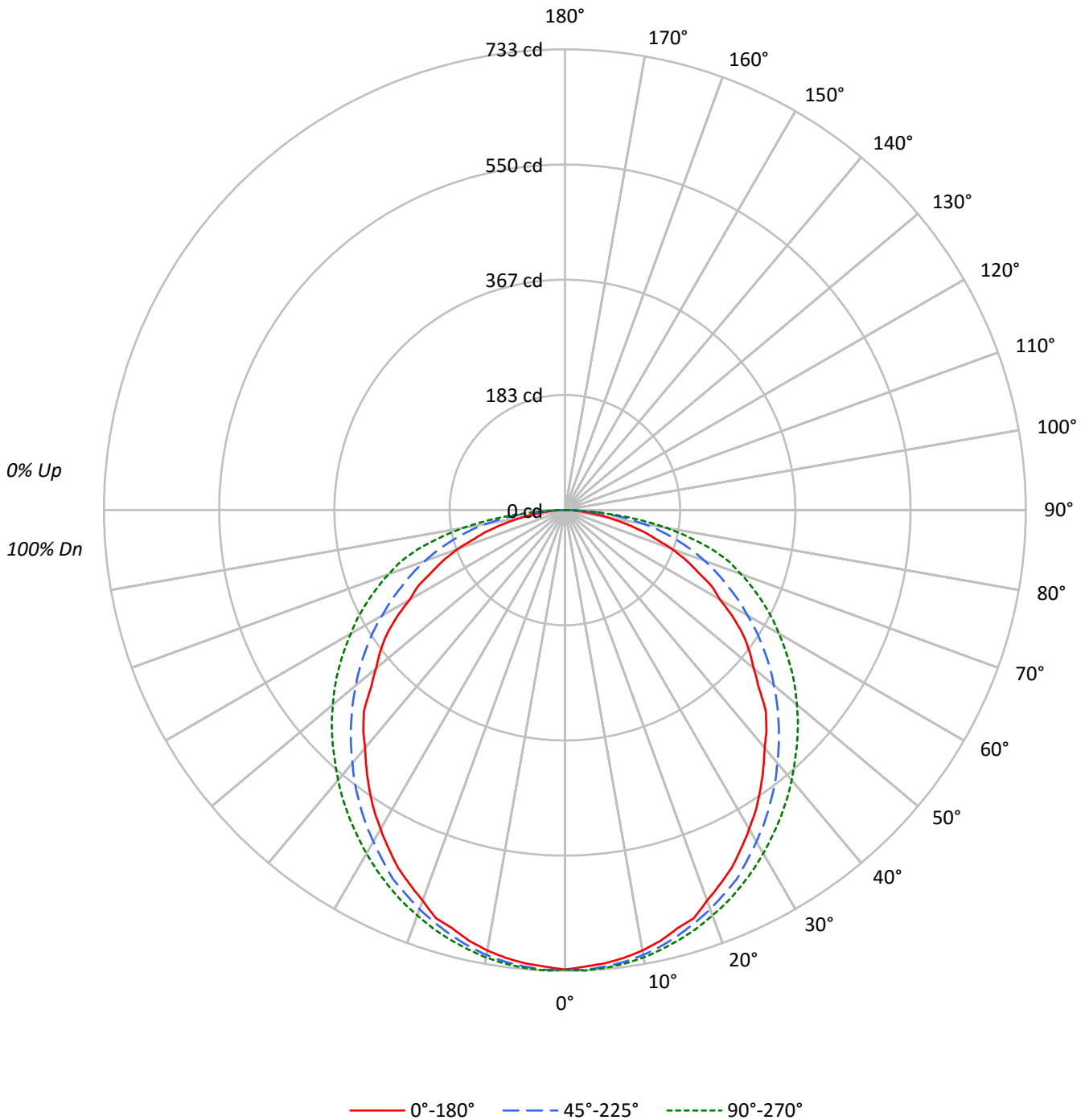
Input Watts (W): 19.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 22FC22-24HE-UNV-L82765-CP125-W2A-U-4500K

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°	1967	1967	1967
5°	1955	1969	1975
10°	1944	1964	1975
15°	1921	1950	1970
20°	1893	1935	1965
25°	1864	1923	1963
30°	1821	1893	1961
35°	1781	1871	1963
40°	1736	1846	1971
45°	1719	1830	1988
50°	1641	1816	2017
55°	1624	1810	2060
60°	1532	1807	2116
65°	1487	1820	2211
70°	1428	1862	2347
75°	1301	1919	2527
80°	1116	1988	2554
85°	902	1899	2189



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.2	3.2
10°-20°	197.3	9.1
20°-30°	297.0	13.6
30°-40°	356.5	16.4
40°-50°	372.6	17.1
50°-60°	347.2	15.9
60°-70°	284.8	13.1
70°-80°	191.9	8.8
80°-90°	62.5	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°	563.5	25.9
0°-40°	920.0	42.2
0°-60°	1639.8	75.3
0°-90°	2179.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2179.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	731	731	731	731	731	
5°	724	726	729	730	731	69
15°	689	694	700	706	707	195
25°	628	632	648	657	661	289
35°	542	550	569	589	598	339
45°	452	455	481	510	522	345
55°	346	352	386	422	439	307
65°	234	244	286	328	347	232
75°	125	139	185	226	243	132
85°	29	42	62	72	71	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	731.1	731.1	731.1	731.1	731.1
2.5°	726.9	729.0	732.1	733.2	733.2
5°	723.8	725.9	729.0	730.0	731.1
7.5°	718.6	720.6	724.8	726.9	727.9
10°	711.3	713.3	718.6	721.7	722.7
12.5°	701.9	704.0	710.2	714.4	715.4
15°	689.4	693.5	699.8	706.0	707.1
17.5°	681.0	680.0	688.3	695.6	697.7
20°	661.2	666.4	675.8	684.1	686.2
22.5°	644.5	648.7	661.2	670.6	674.8
25°	627.8	632.0	647.6	657.0	661.2
27.5°	607.0	613.2	627.8	641.4	646.6
30°	586.1	592.4	609.1	624.7	631.0
32.5°	565.3	572.6	590.3	607.0	614.3
35°	542.3	549.6	569.4	589.2	597.6
37.5°	518.3	527.7	548.6	570.5	579.9
40°	494.3	503.7	525.6	550.7	561.1
42.5°	474.5	478.7	503.7	530.8	541.3
45°	451.6	454.7	480.8	510.0	522.5
47.5°	418.2	429.7	457.8	490.2	502.7
50°	392.1	404.6	433.8	468.3	481.8
52.5°	370.2	378.6	410.9	445.3	461.0
55°	346.2	352.5	385.9	422.4	439.1
57.5°	317.0	328.5	361.9	399.4	416.1
60°	284.7	299.3	335.8	376.5	393.2
62.5°	263.9	272.2	311.8	352.5	371.3
65°	233.6	244.0	285.8	327.5	347.3
67.5°	208.6	219.0	261.8	303.5	323.3
70°	181.5	191.9	236.7	278.5	298.3
72.5°	150.2	164.8	211.7	253.4	274.3
75°	125.1	138.7	184.6	226.3	243.0
77.5°	97.0	114.7	157.5	191.9	204.4
80°	72.0	89.7	128.3	153.3	164.8
82.5°	49.0	66.7	95.9	114.7	121.0
85°	29.2	41.7	61.5	72.0	70.9
87.5°	13.6	17.7	25.0	25.0	24.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)