

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: P308707

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-CA125-W2A-U-6500K**

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: P308707
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: 22FCZ2-29HE-UNV-L82765-CA125-W2A-U-6500K
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: 2674.0 lumens
Efficiency: N/A
Efficacy: 114.3 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

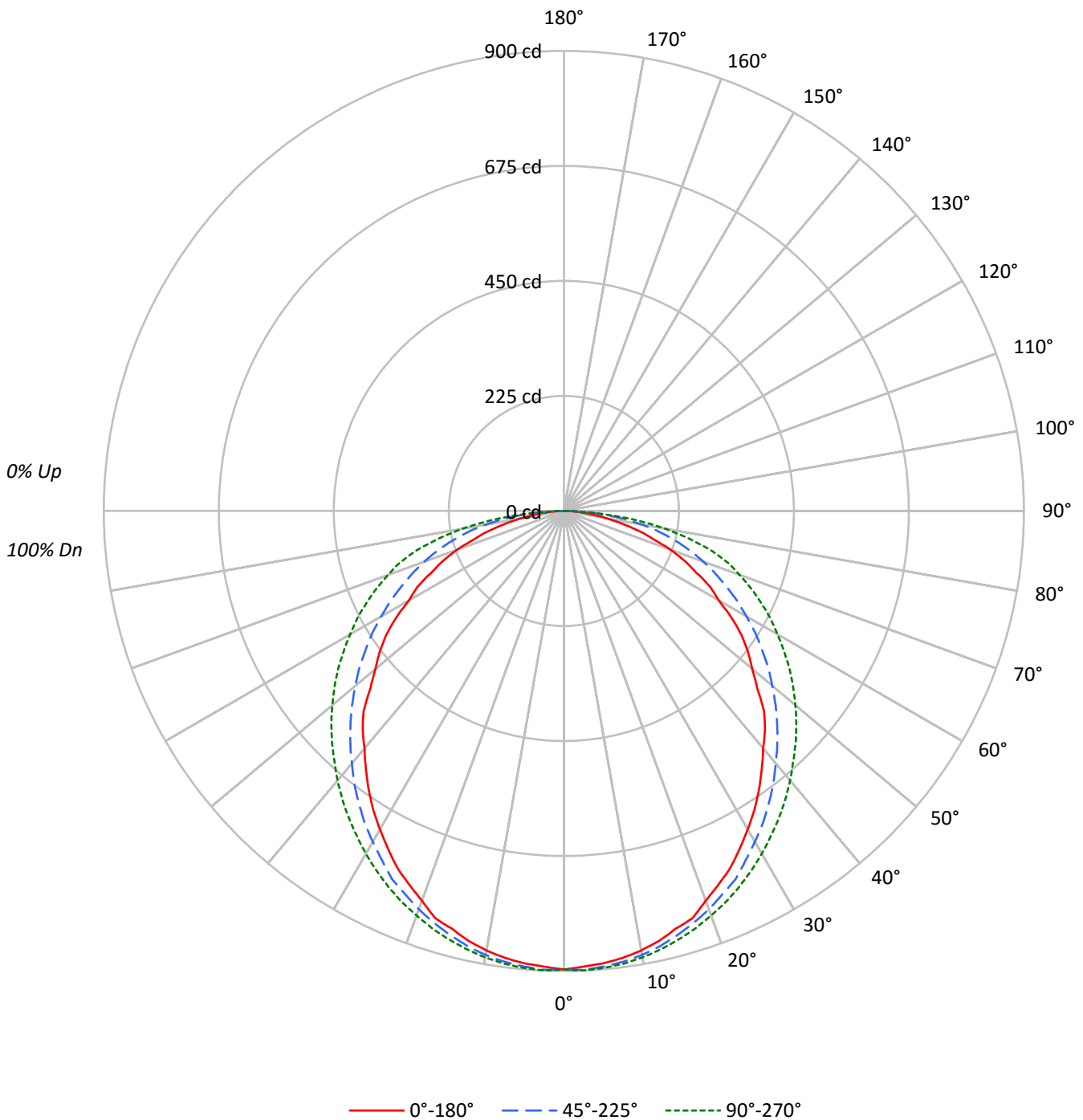
Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2414	2414	2414
5°	2399	2417	2423
10°	2385	2410	2423
15°	2357	2393	2417
20°	2324	2375	2412
25°	2287	2360	2409
30°	2235	2322	2406
35°	2186	2296	2409
40°	2131	2266	2419
45°	2109	2245	2440
50°	2015	2229	2475
55°	1993	2221	2528
60°	1880	2218	2597
65°	1826	2233	2714
70°	1752	2286	2880
75°	1597	2355	3100
80°	1368	2439	3133
85°	1105	2331	2686



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.9	3.2
10°-20°	242.2	9.1
20°-30°	364.5	13.6
30°-40°	437.5	16.4
40°-50°	457.2	17.1
50°-60°	426.1	15.9
60°-70°	349.5	13.1
70°-80°	235.5	8.8
80°-90°	76.7	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°	691.6	25.9
0°-40°	1129.0	42.2
0°-60°	2012.3	75.3
0°-90°	2674.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2674.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	897	897	897	897	897	
5°	888	891	895	896	897	84
15°	846	851	859	866	868	239
25°	770	776	795	806	811	354
35°	666	674	699	723	733	416
45°	554	558	590	626	641	423
55°	425	433	474	518	539	376
65°	287	300	351	402	426	285
75°	154	170	226	278	298	161
85°	36	51	76	88	87	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	897.1	897.1	897.1	897.1	897.1
2.5°	892.0	894.6	898.4	899.7	899.7
5°	888.2	890.8	894.6	895.9	897.1
7.5°	881.8	884.4	889.5	892.0	893.3
10°	872.8	875.4	881.8	885.6	886.9
12.5°	861.3	863.9	871.6	876.7	878.0
15°	846.0	851.1	858.8	866.4	867.7
17.5°	835.7	834.4	844.7	853.6	856.2
20°	811.4	817.8	829.3	839.6	842.1
22.5°	790.9	796.0	811.4	822.9	828.0
25°	770.4	775.6	794.8	806.3	811.4
27.5°	744.9	752.5	770.4	787.1	793.5
30°	719.3	726.9	747.4	766.6	774.3
32.5°	693.7	702.6	724.4	744.9	753.8
35°	665.5	674.5	698.8	723.1	733.3
37.5°	636.1	647.6	673.2	700.1	711.6
40°	606.6	618.2	645.0	675.7	688.5
42.5°	582.3	587.4	618.2	651.4	664.2
45°	554.2	558.0	590.0	625.8	641.2
47.5°	513.2	527.3	561.8	601.5	616.9
50°	481.2	496.6	532.4	574.6	591.3
52.5°	454.3	464.6	504.2	546.5	565.7
55°	424.9	432.6	473.5	518.3	538.8
57.5°	389.1	403.1	444.1	490.2	510.6
60°	349.4	367.3	412.1	462.0	482.5
62.5°	323.8	334.0	382.7	432.6	455.6
65°	286.7	299.5	350.7	401.9	426.2
67.5°	256.0	268.8	321.2	372.4	396.7
70°	222.7	235.5	290.5	341.7	366.0
72.5°	184.3	202.2	259.8	311.0	336.6
75°	153.6	170.2	226.5	277.7	298.2
77.5°	119.0	140.8	193.3	235.5	250.8
80°	88.3	110.1	157.4	188.1	202.2
82.5°	60.2	81.9	117.7	140.8	148.5
85°	35.8	51.2	75.5	88.3	87.0
87.5°	16.6	21.8	30.7	30.7	29.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)