

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: P308705

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-CA125-W2A-U-5500K**

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: P308705
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-5500K
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: 2660.0 lumens
Efficiency: N/A
Efficacy: 115.7 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

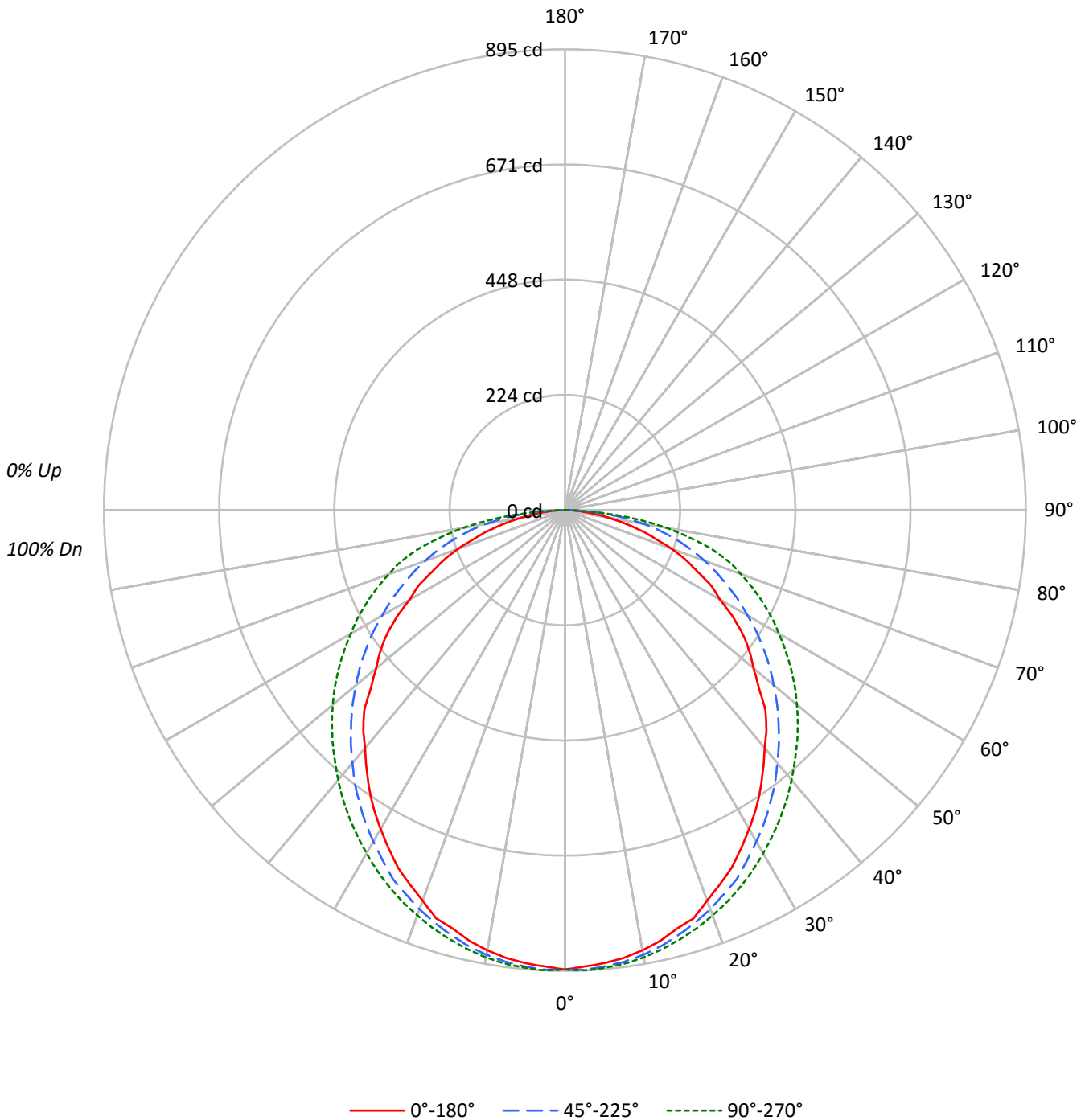
Input Watts (W): 23
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2402	2402	2402
5°	2387	2404	2411
10°	2373	2397	2411
15°	2344	2380	2405
20°	2312	2363	2399
25°	2276	2347	2397
30°	2223	2310	2393
35°	2175	2283	2396
40°	2120	2254	2406
45°	2098	2234	2427
50°	2004	2217	2462
55°	1983	2210	2515
60°	1871	2206	2583
65°	1816	2221	2699
70°	1743	2274	2865
75°	1589	2342	3084
80°	1361	2427	3118
85°	1099	2319	2674



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.4	3.2
10°-20°	240.9	9.1
20°-30°	362.6	13.6
30°-40°	435.2	16.4
40°-50°	454.8	17.1
50°-60°	423.9	15.9
60°-70°	347.7	13.1
70°-80°	234.2	8.8
80°-90°	76.3	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°	687.9	25.9
0°-40°	1123.1	42.2
0°-60°	2001.8	75.3
0°-90°	2660.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2660.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	892	892	892	892	892	
5°	884	886	890	891	892	84
15°	842	847	854	862	863	238
25°	766	772	791	802	807	352
35°	662	671	695	719	730	414
45°	551	555	587	623	638	421
55°	423	430	471	516	536	375
65°	285	298	349	400	424	284
75°	153	169	225	276	297	161
85°	36	51	75	88	87	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	892.5	892.5	892.5	892.5	892.5
2.5°	887.4	889.9	893.7	895.0	895.0
5°	883.5	886.1	889.9	891.2	892.5
7.5°	877.2	879.7	884.8	887.4	888.6
10°	868.3	870.8	877.2	881.0	882.3
12.5°	856.8	859.4	867.0	872.1	873.4
15°	841.5	846.6	854.3	861.9	863.2
17.5°	831.3	830.1	840.3	849.2	851.7
20°	807.2	813.5	825.0	835.2	837.7
22.5°	786.8	791.9	807.2	818.6	823.7
25°	766.4	771.5	790.6	802.1	807.2
27.5°	741.0	748.6	766.4	783.0	789.3
30°	715.5	723.1	743.5	762.6	770.2
32.5°	690.0	698.9	720.6	741.0	749.9
35°	662.0	670.9	695.1	719.3	729.5
37.5°	632.7	644.2	669.7	696.4	707.9
40°	603.5	614.9	641.6	672.2	684.9
42.5°	579.3	584.4	614.9	648.0	660.7
45°	551.3	555.1	586.9	622.6	637.8
47.5°	510.5	524.5	558.9	598.4	613.6
50°	478.7	494.0	529.6	571.6	588.2
52.5°	452.0	462.1	501.6	543.6	562.7
55°	422.7	430.3	471.1	515.6	536.0
57.5°	387.0	401.0	441.8	487.6	508.0
60°	347.6	365.4	409.9	459.6	480.0
62.5°	322.1	332.3	380.7	430.3	453.2
65°	285.2	297.9	348.8	399.8	423.9
67.5°	254.6	267.4	319.6	370.5	394.7
70°	221.5	234.3	289.0	339.9	364.1
72.5°	183.3	201.2	258.4	309.4	334.8
75°	152.8	169.3	225.3	276.3	296.6
77.5°	118.4	140.0	192.2	234.3	249.5
80°	87.8	109.5	156.6	187.1	201.2
82.5°	59.8	81.5	117.1	140.0	147.7
85°	35.6	50.9	75.1	87.8	86.6
87.5°	16.6	21.6	30.6	30.6	29.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)