

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: P308438

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-RDP-CP125-W2A-U-2700K**

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: P308438
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
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-RDP-CP125-W2A-U-2700K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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: 1540.0 lumens
Efficiency: N/A
Efficacy: 68.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

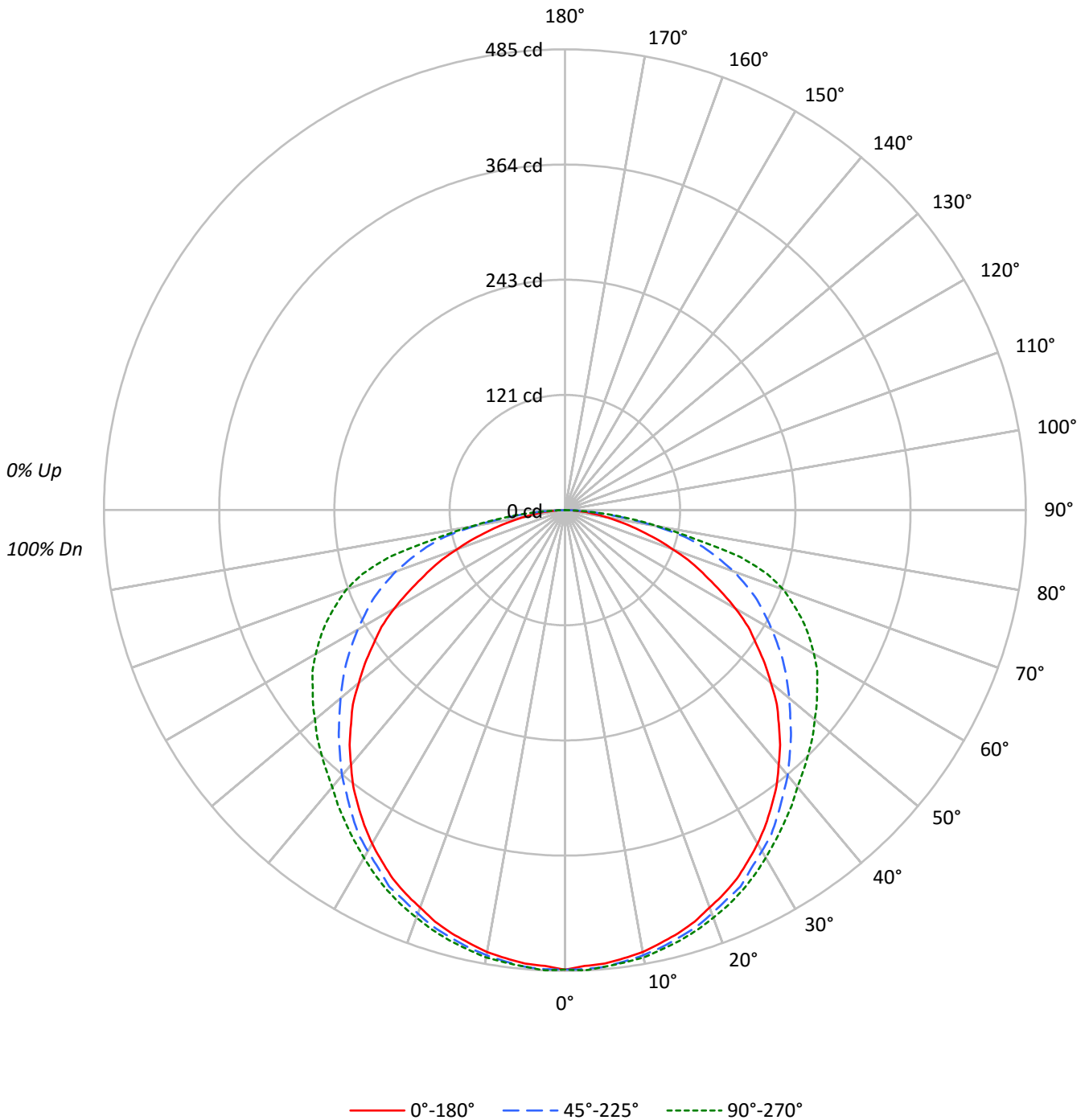
Input Watts (W): 22.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1302	1302	1302
5°	1294	1304	1304
10°	1291	1300	1306
15°	1285	1297	1307
20°	1275	1294	1308
25°	1271	1298	1312
30°	1260	1288	1313
35°	1247	1284	1321
40°	1230	1281	1337
45°	1211	1281	1380
50°	1186	1290	1437
55°	1153	1318	1520
60°	1116	1354	1628
65°	1039	1421	1760
70°	954	1489	1925
75°	836	1567	1991
80°	719	1492	1562
85°	630	1084	1189



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.8	3.0
10°-20°	131.4	8.5
20°-30°	200.5	13.0
30°-40°	244.7	15.9
40°-50°	261.7	17.0
50°-60°	252.6	16.4
60°-70°	217.4	14.1
70°-80°	147.1	9.6
80°-90°	38.8	2.5
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°	377.6	24.5
0°-40°	622.3	40.4
0°-60°	1136.6	73.8
0°-90°	1540.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1540.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	484	484	484	484	484	
5°	479	480	483	483	483	46
15°	461	462	466	468	469	130
25°	428	430	437	440	442	197
35°	380	383	391	399	402	237
45°	318	324	336	354	362	246
55°	246	254	281	309	324	220
65°	163	179	223	258	276	162
75°	80	106	151	181	192	86
85°	20	28	35	36	38	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	483.7	483.7	483.7	483.7	483.7
2.5°	480.3	481.5	483.7	483.7	484.9
5°	479.2	480.3	482.6	482.6	482.6
7.5°	475.8	476.9	479.2	480.3	480.3
10°	472.4	473.5	475.8	476.9	478.1
12.5°	466.7	467.9	471.3	473.5	473.5
15°	461.1	462.2	465.6	467.9	469.0
17.5°	454.3	456.6	460.0	462.2	463.3
20°	445.2	447.5	452.0	455.4	456.6
22.5°	437.3	439.6	444.1	447.5	449.8
25°	428.2	430.5	437.3	439.6	441.8
27.5°	416.9	419.2	424.8	429.4	432.8
30°	405.6	407.8	414.6	420.3	422.6
32.5°	393.1	396.5	404.4	409.0	412.4
35°	379.5	382.9	390.8	398.8	402.2
37.5°	365.9	369.3	377.2	387.4	392.0
40°	350.1	354.6	364.8	378.4	380.6
42.5°	335.3	341.0	350.1	365.9	371.6
45°	318.3	324.0	336.5	353.5	362.5
47.5°	302.5	308.1	321.7	342.1	353.5
50°	283.2	291.2	308.1	331.9	343.3
52.5°	265.1	271.9	294.5	320.6	334.2
55°	245.8	253.8	281.0	309.3	324.0
57.5°	228.8	235.6	266.2	297.9	314.9
60°	207.3	216.4	251.5	285.5	302.5
62.5°	184.7	198.3	236.8	271.9	290.0
65°	163.1	179.0	223.2	258.3	276.4
67.5°	143.9	160.9	206.2	243.6	260.6
70°	121.2	142.7	189.2	225.4	244.7
72.5°	100.8	124.6	169.9	206.2	223.2
75°	80.4	106.5	150.7	181.3	191.5
77.5°	62.3	87.2	129.1	138.2	139.3
80°	46.4	69.1	96.3	97.4	100.8
82.5°	31.7	48.7	62.3	68.0	69.1
85°	20.4	28.3	35.1	36.3	38.5
87.5°	9.1	10.2	12.5	11.3	11.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)