

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: P308444

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-RDP-CP125-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: P308444
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-5500K
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: 1746.0 lumens
Efficiency: N/A
Efficacy: 75.9 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

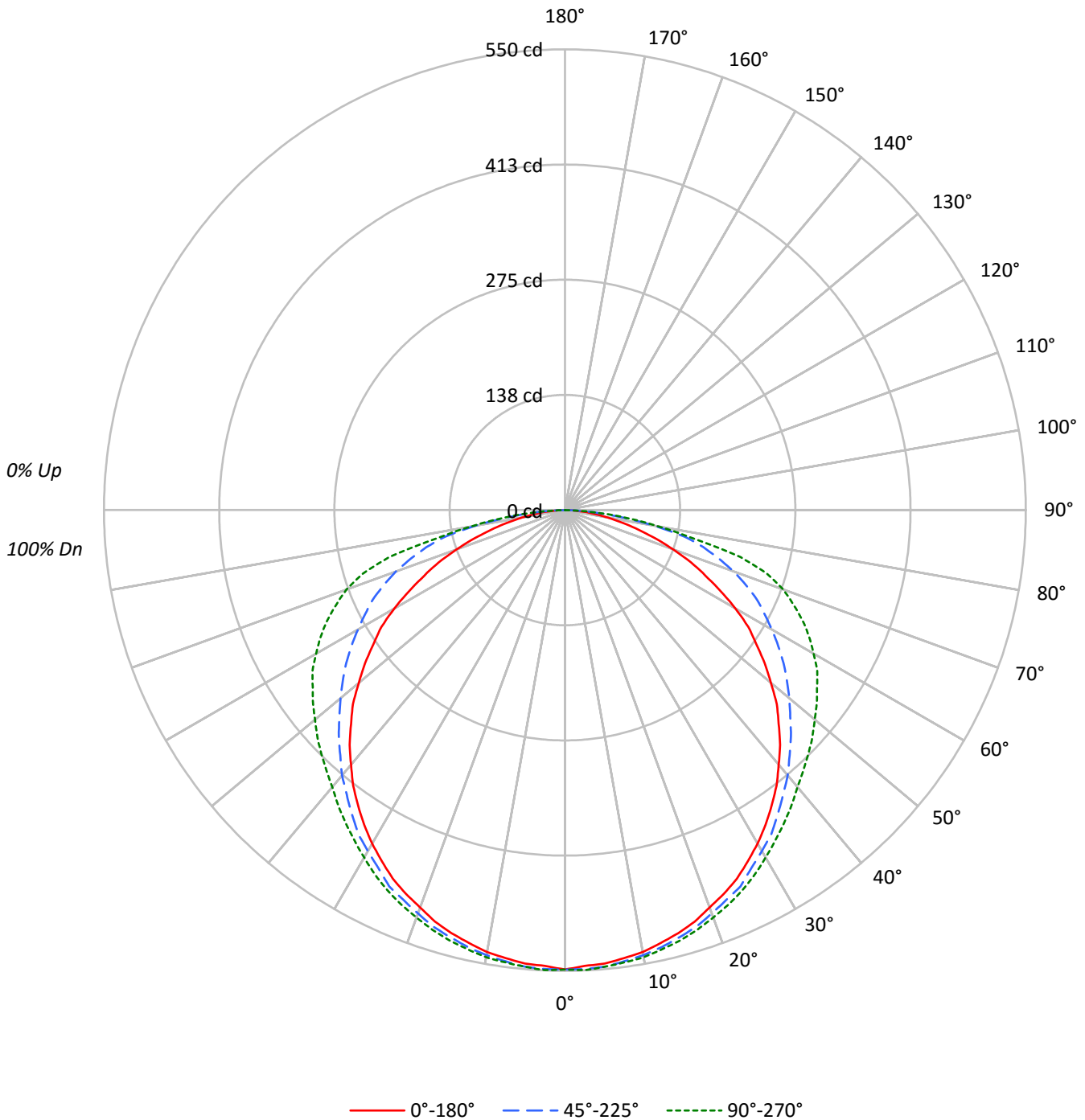
Input Watts (W): 23
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1476	1476	1476
5°	1468	1478	1478
10°	1464	1474	1481
15°	1456	1471	1482
20°	1446	1468	1482
25°	1442	1472	1487
30°	1429	1461	1489
35°	1414	1456	1498
40°	1394	1453	1516
45°	1373	1452	1564
50°	1344	1463	1629
55°	1308	1494	1723
60°	1265	1534	1845
65°	1178	1611	1996
70°	1081	1688	2183
75°	948	1776	2257
80°	817	1692	1771
85°	713	1229	1349



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.9	3.0
10°-20°	149.0	8.5
20°-30°	227.3	13.0
30°-40°	277.5	15.9
40°-50°	296.7	17.0
50°-60°	286.4	16.4
60°-70°	246.5	14.1
70°-80°	166.8	9.6
80°-90°	44.0	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°	428.1	24.5
0°-40°	705.6	40.4
0°-60°	1288.7	73.8
0°-90°	1746.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1746.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	548	548	548	548	548	
5°	543	545	547	547	547	52
15°	523	524	528	530	532	147
25°	486	488	496	498	501	223
35°	430	434	443	452	456	269
45°	361	367	382	401	411	279
55°	279	288	318	351	367	250
65°	185	203	253	293	313	184
75°	91	121	171	206	217	98
85°	23	32	40	41	44	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	548.4	548.4	548.4	548.4	548.4
2.5°	544.6	545.9	548.4	548.4	549.7
5°	543.3	544.6	547.2	547.2	547.2
7.5°	539.5	540.7	543.3	544.6	544.6
10°	535.6	536.9	539.5	540.7	542.0
12.5°	529.2	530.5	534.3	536.9	536.9
15°	522.8	524.0	527.9	530.5	531.8
17.5°	515.1	517.6	521.5	524.0	525.3
20°	504.8	507.3	512.5	516.3	517.6
22.5°	495.8	498.4	503.5	507.3	509.9
25°	485.5	488.1	495.8	498.4	500.9
27.5°	472.7	475.2	481.7	486.8	490.6
30°	459.8	462.4	470.1	476.5	479.1
32.5°	445.7	449.5	458.5	463.7	467.5
35°	430.3	434.1	443.1	452.1	456.0
37.5°	414.9	418.7	427.7	439.3	444.4
40°	396.9	402.0	413.6	429.0	431.6
42.5°	380.2	386.6	396.9	414.9	421.3
45°	360.9	367.3	381.5	400.7	411.0
47.5°	342.9	349.4	364.8	387.9	400.7
50°	321.1	330.1	349.4	376.3	389.2
52.5°	300.6	308.3	334.0	363.5	378.9
55°	278.7	287.7	318.5	350.6	367.3
57.5°	259.5	267.2	301.8	337.8	357.1
60°	235.0	245.3	285.1	323.7	342.9
62.5°	209.4	224.8	268.4	308.3	328.8
65°	185.0	202.9	253.0	292.8	313.4
67.5°	163.1	182.4	233.8	276.2	295.4
70°	137.4	161.8	214.5	255.6	277.4
72.5°	114.3	141.3	192.7	233.8	253.0
75°	91.2	120.7	170.8	205.5	217.1
77.5°	70.6	98.9	146.4	156.7	158.0
80°	52.7	78.3	109.2	110.5	114.3
82.5°	36.0	55.2	70.6	77.1	78.3
85°	23.1	32.1	39.8	41.1	43.7
87.5°	10.3	11.6	14.1	12.8	12.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)