

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: P308433

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-RDP-CA125-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: P308433
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-CA125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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: 1739.0 lumens
Efficiency: N/A
Efficacy: 76.3 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

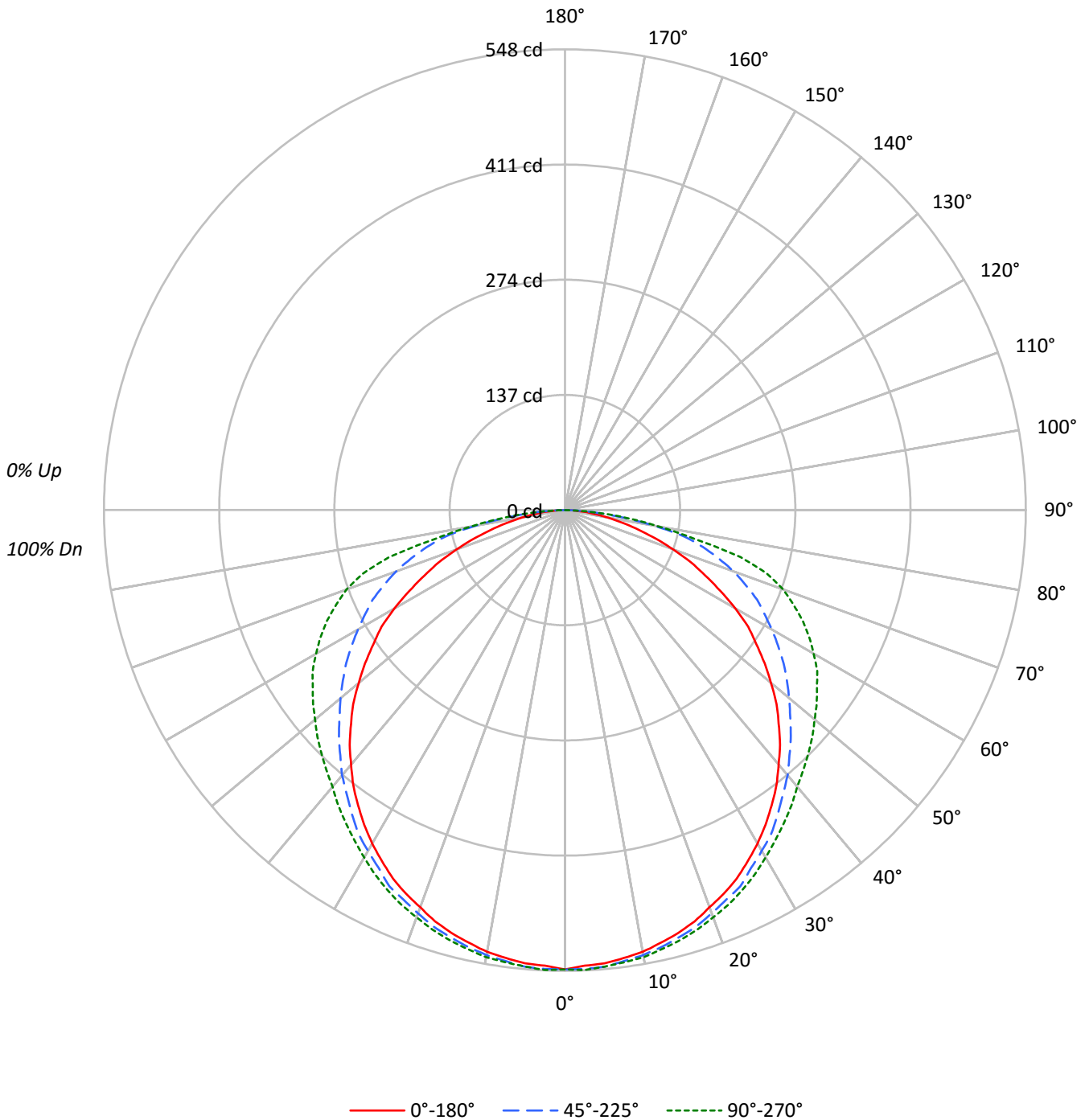
Input Watts (W): 22.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1470	1470	1470
5°	1462	1472	1472
10°	1458	1468	1475
15°	1451	1465	1475
20°	1440	1462	1476
25°	1436	1466	1481
30°	1423	1455	1483
35°	1408	1450	1492
40°	1389	1447	1510
45°	1368	1446	1558
50°	1339	1457	1623
55°	1302	1489	1717
60°	1260	1528	1838
65°	1173	1605	1987
70°	1077	1681	2174
75°	944	1769	2248
80°	814	1684	1765
85°	710	1226	1343



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.7	3.0
10°-20°	148.4	8.5
20°-30°	226.3	13.0
30°-40°	276.4	15.9
40°-50°	295.5	17.0
50°-60°	285.2	16.4
60°-70°	245.5	14.1
70°-80°	166.1	9.6
80°-90°	43.8	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°	426.4	24.5
0°-40°	702.7	40.4
0°-60°	1283.5	73.8
0°-90°	1739.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1739.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	546	546	546	546	546	
5°	541	542	545	545	545	51
15°	521	522	526	528	530	147
25°	484	486	494	496	499	223
35°	429	432	441	450	454	268
45°	360	366	380	399	409	277
55°	278	287	317	349	366	249
65°	184	202	252	292	312	183
75°	91	120	170	205	216	97
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°	546.3	546.3	546.3	546.3	546.3
2.5°	542.4	543.7	546.3	546.3	547.5
5°	541.1	542.4	545.0	545.0	545.0
7.5°	537.3	538.6	541.1	542.4	542.4
10°	533.5	534.7	537.3	538.6	539.9
12.5°	527.1	528.3	532.2	534.7	534.7
15°	520.7	521.9	525.8	528.3	529.6
17.5°	513.0	515.5	519.4	521.9	523.2
20°	502.8	505.3	510.4	514.3	515.5
22.5°	493.8	496.4	501.5	505.3	507.9
25°	483.6	486.1	493.8	496.4	498.9
27.5°	470.8	473.3	479.7	484.8	488.7
30°	458.0	460.5	468.2	474.6	477.2
32.5°	443.9	447.7	456.7	461.8	465.7
35°	428.6	432.4	441.3	450.3	454.1
37.5°	413.2	417.0	426.0	437.5	442.6
40°	395.3	400.4	411.9	427.3	429.8
42.5°	378.7	385.1	395.3	413.2	419.6
45°	359.5	365.9	379.9	399.1	409.4
47.5°	341.6	348.0	363.3	386.3	399.1
50°	319.8	328.8	348.0	374.8	387.6
52.5°	299.4	307.0	332.6	362.0	377.4
55°	277.6	286.6	317.3	349.2	365.9
57.5°	258.4	266.1	300.6	336.4	355.6
60°	234.1	244.3	284.0	322.4	341.6
62.5°	208.5	223.9	267.4	307.0	327.5
65°	184.2	202.1	252.0	291.7	312.1
67.5°	162.5	181.7	232.8	275.0	294.2
70°	136.9	161.2	213.6	254.6	276.3
72.5°	113.9	140.7	191.9	232.8	252.0
75°	90.8	120.3	170.1	204.7	216.2
77.5°	70.4	98.5	145.8	156.1	157.4
80°	52.5	78.0	108.7	110.0	113.9
82.5°	35.8	55.0	70.4	76.8	78.0
85°	23.0	32.0	39.7	40.9	43.5
87.5°	10.2	11.5	14.1	12.8	12.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)