

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: P308422

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-RDP-CA08-W2A-U-3500K**

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: P308422  
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-CA08-W2A-U-3500K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" 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**

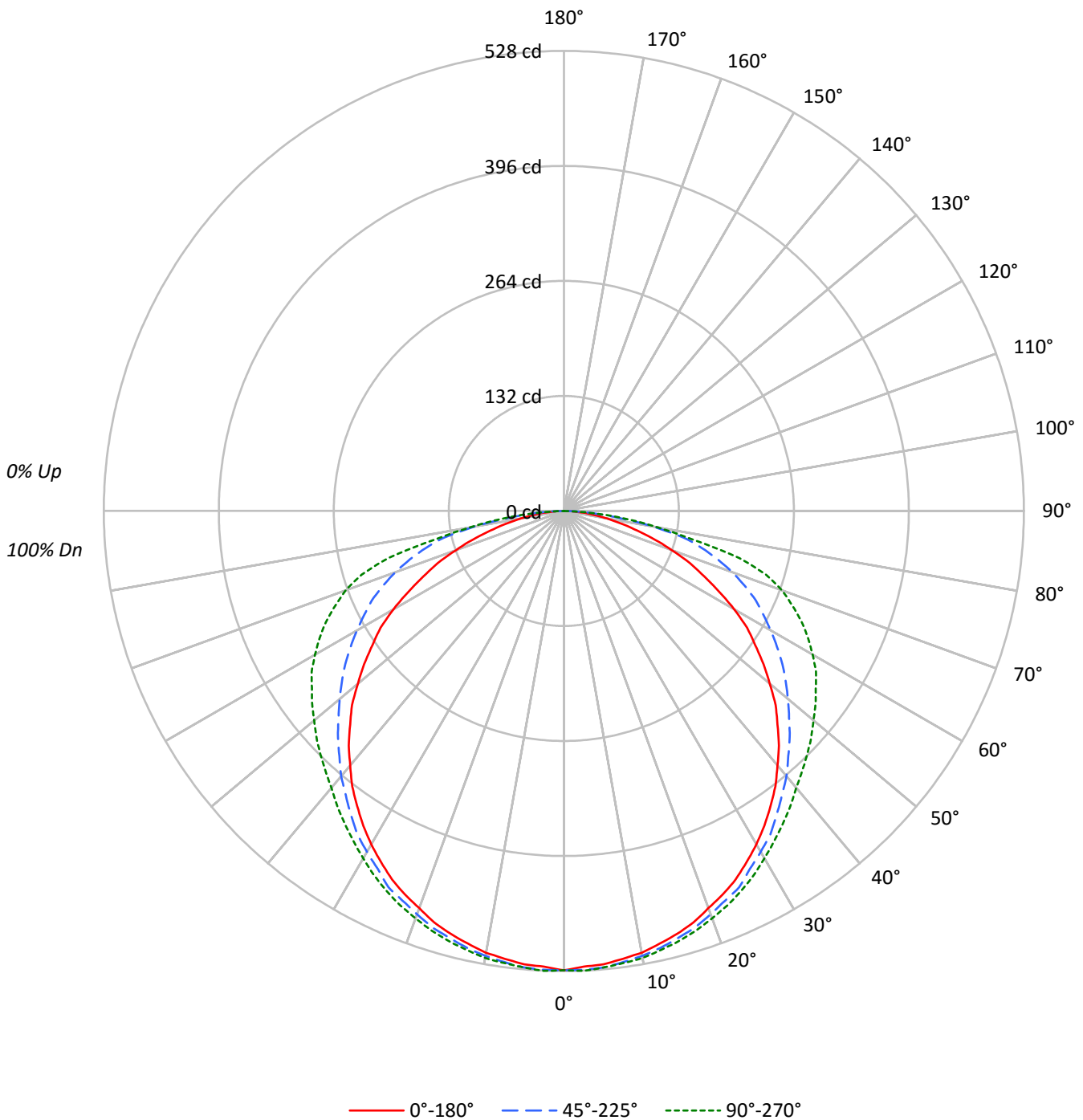
Lumens per Lamp: N/A  
Luminaire Lumens: 1678.0 lumens  
Efficiency: N/A  
Efficacy: 74.6 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 22.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	1418	1418	1418
5°	1411	1421	1421
10°	1406	1417	1423
15°	1400	1413	1424
20°	1389	1410	1425
25°	1385	1415	1429
30°	1373	1404	1431
35°	1358	1399	1440
40°	1340	1396	1457
45°	1320	1395	1503
50°	1292	1406	1566
55°	1257	1436	1656
60°	1216	1475	1774
65°	1132	1549	1918
70°	1039	1622	2098
75°	911	1707	2169
80°	784	1626	1703
85°	685	1183	1297



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.9	3.0
10°-20°	143.2	8.5
20°-30°	218.4	13.0
30°-40°	266.7	15.9
40°-50°	285.1	17.0
50°-60°	275.2	16.4
60°-70°	236.9	14.1
70°-80°	160.3	9.6
80°-90°	42.3	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°	411.4	24.5
0°-40°	678.1	40.4
0°-60°	1238.5	73.8
0°-90°	1678.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1678.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	527	527	527	527	527	
5°	522	523	526	526	526	50
15°	502	504	507	510	511	142
25°	467	469	476	479	481	215
35°	414	417	426	434	438	259
45°	347	353	367	385	395	268
55°	268	276	306	337	353	240
65°	178	195	243	281	301	177
75°	88	116	164	198	209	94
85°	22	31	38	40	42	25
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	527.1	527.1	527.1	527.1	527.1
2.5°	523.4	524.6	527.1	527.1	528.3
5°	522.2	523.4	525.9	525.9	525.9
7.5°	518.4	519.7	522.2	523.4	523.4
10°	514.7	516.0	518.4	519.7	520.9
12.5°	508.6	509.8	513.5	516.0	516.0
15°	502.4	503.6	507.3	509.8	511.0
17.5°	495.0	497.5	501.2	503.6	504.9
20°	485.1	487.6	492.5	496.2	497.5
22.5°	476.5	478.9	483.9	487.6	490.1
25°	466.6	469.1	476.5	478.9	481.4
27.5°	454.3	456.7	462.9	467.8	471.5
30°	441.9	444.4	451.8	458.0	460.4
32.5°	428.3	432.0	440.7	445.6	449.3
35°	413.5	417.2	425.9	434.5	438.2
37.5°	398.7	402.4	411.1	422.2	427.1
40°	381.4	386.4	397.5	412.3	414.8
42.5°	365.4	371.6	381.4	398.7	404.9
45°	346.9	353.0	366.6	385.1	395.0
47.5°	329.6	335.8	350.6	372.8	385.1
50°	308.6	317.2	335.8	361.7	374.0
52.5°	288.8	296.3	320.9	349.3	364.1
55°	267.9	276.5	306.1	337.0	353.0
57.5°	249.3	256.8	290.1	324.6	343.2
60°	225.9	235.8	274.0	311.1	329.6
62.5°	201.2	216.0	258.0	296.3	316.0
65°	177.8	195.0	243.2	281.4	301.2
67.5°	156.8	175.3	224.7	265.4	283.9
70°	132.1	155.5	206.1	245.6	266.6
72.5°	109.9	135.8	185.2	224.7	243.2
75°	87.6	116.0	164.2	197.5	208.6
77.5°	67.9	95.0	140.7	150.6	151.8
80°	50.6	75.3	104.9	106.2	109.9
82.5°	34.6	53.1	67.9	74.1	75.3
85°	22.2	30.9	38.3	39.5	42.0
87.5°	9.9	11.1	13.6	12.3	12.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)