

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: P308423

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-RDP-CA08-W2A-U-4000K**

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: P308423  
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-4000K  
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**

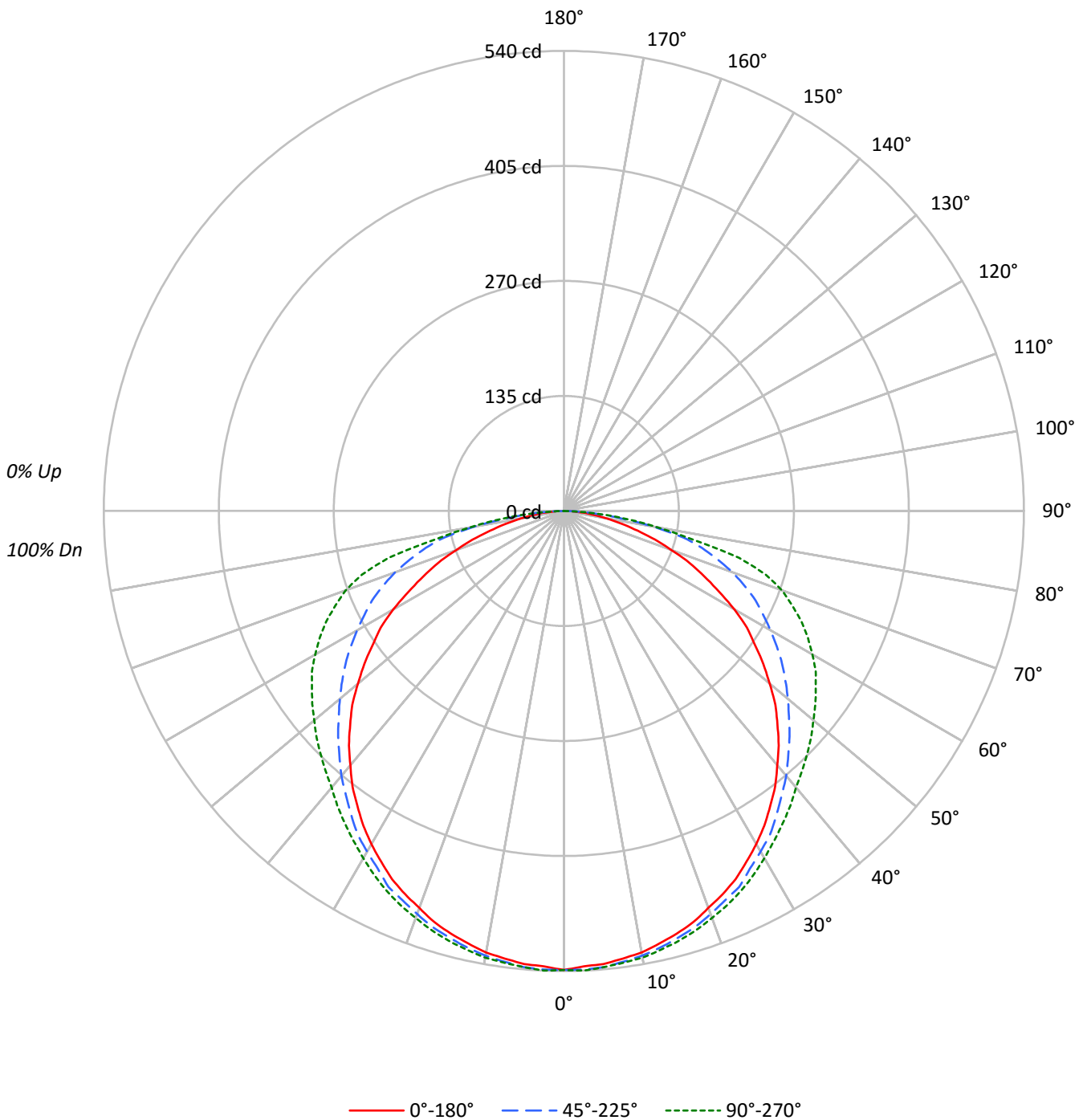
Lumens per Lamp: N/A  
Luminaire Lumens: 1715.0 lumens  
Efficiency: N/A  
Efficacy: 75.5 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 22.7  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	1450	1450	1450
5°	1442	1452	1452
10°	1438	1448	1455
15°	1431	1444	1455
20°	1420	1442	1456
25°	1416	1446	1461
30°	1404	1435	1462
35°	1388	1430	1471
40°	1369	1427	1489
45°	1349	1426	1536
50°	1320	1437	1600
55°	1285	1468	1693
60°	1243	1507	1813
65°	1157	1582	1960
70°	1062	1658	2144
75°	932	1745	2217
80°	801	1661	1740
85°	701	1207	1325



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.0	3.0
10°-20°	146.3	8.5
20°-30°	223.2	13.0
30°-40°	272.6	15.9
40°-50°	291.4	17.0
50°-60°	281.3	16.4
60°-70°	242.1	14.1
70°-80°	163.8	9.6
80°-90°	43.2	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°	420.5	24.5
0°-40°	693.1	40.4
0°-60°	1265.8	73.8
0°-90°	1715.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1715.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	539	539	539	539	539	
5°	534	535	537	537	537	51
15°	514	515	518	521	522	145
25°	477	479	487	490	492	219
35°	423	426	435	444	448	264
45°	354	361	375	394	404	274
55°	274	283	313	344	361	245
65°	182	199	248	288	308	181
75°	90	119	168	202	213	96
85°	23	32	39	40	43	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	538.7	538.7	538.7	538.7	538.7
2.5°	534.9	536.2	538.7	538.7	540.0
5°	533.7	534.9	537.4	537.4	537.4
7.5°	529.9	531.1	533.7	534.9	534.9
10°	526.1	527.4	529.9	531.1	532.4
12.5°	519.8	521.0	524.8	527.4	527.4
15°	513.5	514.7	518.5	521.0	522.3
17.5°	505.9	508.4	512.2	514.7	516.0
20°	495.8	498.3	503.4	507.2	508.4
22.5°	487.0	489.5	494.6	498.3	500.9
25°	476.9	479.4	487.0	489.5	492.0
27.5°	464.3	466.8	473.1	478.2	481.9
30°	451.7	454.2	461.8	468.1	470.6
32.5°	437.8	441.6	450.4	455.4	459.2
35°	422.6	426.4	435.3	444.1	447.9
37.5°	407.5	411.3	420.1	431.5	436.5
40°	389.8	394.9	406.2	421.4	423.9
42.5°	373.4	379.7	389.8	407.5	413.8
45°	354.5	360.8	374.7	393.6	403.7
47.5°	336.9	343.2	358.3	381.0	393.6
50°	315.4	324.2	343.2	369.7	382.3
52.5°	295.2	302.8	328.0	357.0	372.2
55°	273.8	282.6	312.9	344.4	360.8
57.5°	254.8	262.4	296.5	331.8	350.7
60°	230.9	241.0	280.1	317.9	336.9
62.5°	205.6	220.8	263.7	302.8	323.0
65°	181.7	199.3	248.5	287.6	307.8
67.5°	160.2	179.1	229.6	271.2	290.2
70°	135.0	159.0	210.7	251.1	272.5
72.5°	112.3	138.8	189.2	229.6	248.5
75°	89.6	118.6	167.8	201.9	213.2
77.5°	69.4	97.1	143.8	153.9	155.2
80°	51.7	77.0	107.2	108.5	112.3
82.5°	35.3	54.2	69.4	75.7	77.0
85°	22.7	31.5	39.1	40.4	42.9
87.5°	10.1	11.4	13.9	12.6	12.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)