

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: P308460

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-RDP-CP250-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: P308460  
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-CP250-W2A-U-4500K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" 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: 1620.0 lumens  
Efficiency: N/A  
Efficacy: 71.1 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

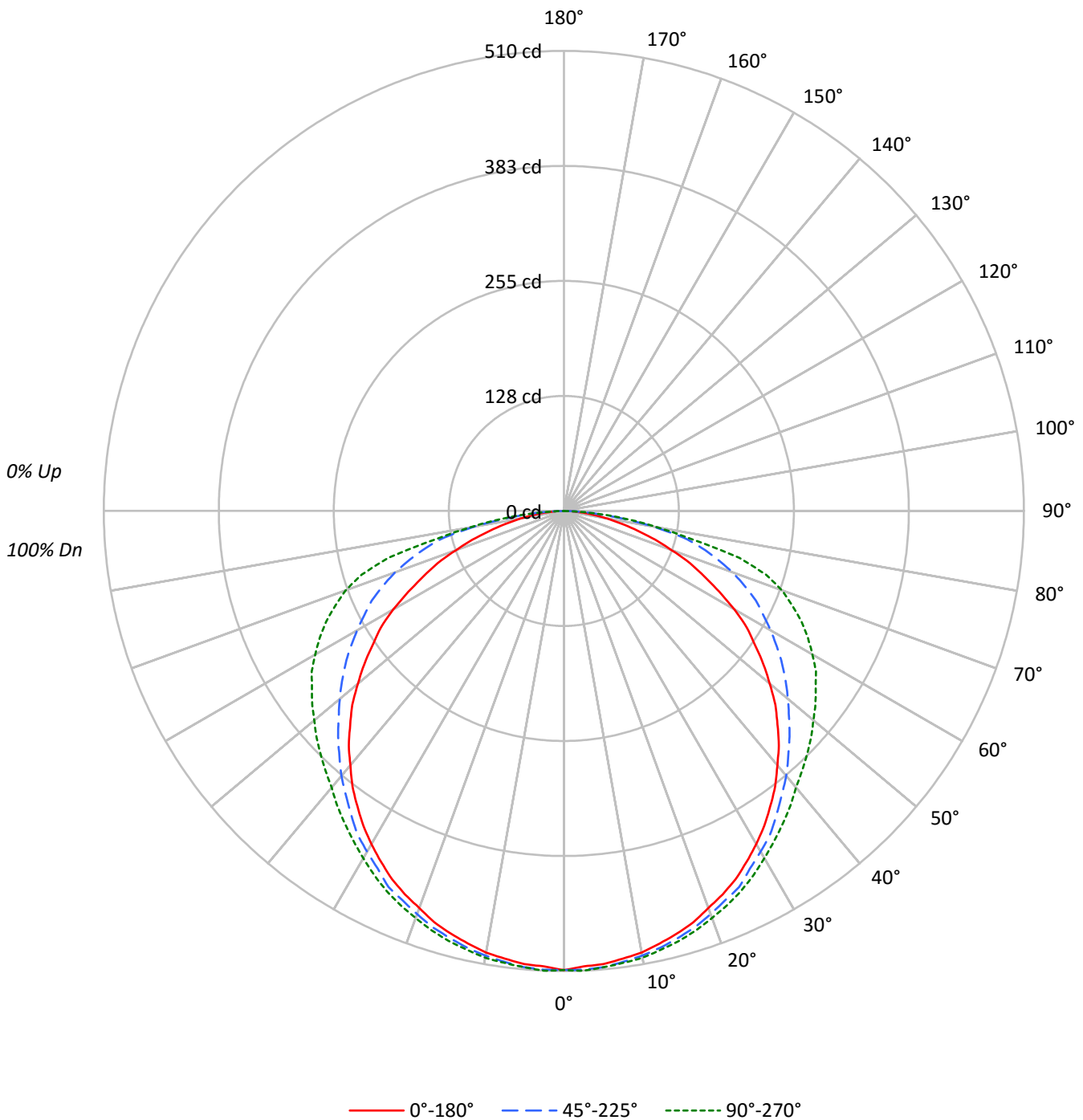
Input Watts (W): 22.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1369	1369	1369
5°	1362	1371	1371
10°	1358	1368	1374
15°	1351	1365	1375
20°	1341	1362	1375
25°	1338	1366	1380
30°	1326	1355	1381
35°	1311	1350	1390
40°	1293	1348	1407
45°	1275	1347	1451
50°	1247	1357	1512
55°	1213	1386	1599
60°	1174	1424	1713
65°	1093	1495	1852
70°	1003	1566	2025
75°	880	1648	2094
80°	758	1570	1644
85°	664	1139	1250



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.1	3.0
10°-20°	138.2	8.5
20°-30°	210.9	13.0
30°-40°	257.5	15.9
40°-50°	275.3	17.0
50°-60°	265.7	16.4
60°-70°	228.7	14.1
70°-80°	154.8	9.6
80°-90°	40.8	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°	397.2	24.5
0°-40°	654.7	40.4
0°-60°	1195.7	73.8
0°-90°	1620.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1620.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	509	509	509	509	509	
5°	504	505	508	508	508	48
15°	485	486	490	492	493	137
25°	450	453	460	462	465	207
35°	399	403	411	420	423	250
45°	335	341	354	372	381	258
55°	259	267	296	325	341	232
65°	172	188	235	272	291	171
75°	85	112	158	191	201	91
85°	22	30	37	38	40	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	508.9	508.9	508.9	508.9	508.9
2.5°	505.3	506.5	508.9	508.9	510.1
5°	504.1	505.3	507.7	507.7	507.7
7.5°	500.5	501.7	504.1	505.3	505.3
10°	497.0	498.1	500.5	501.7	502.9
12.5°	491.0	492.2	495.8	498.1	498.1
15°	485.0	486.2	489.8	492.2	493.4
17.5°	477.9	480.3	483.8	486.2	487.4
20°	468.4	470.7	475.5	479.1	480.3
22.5°	460.0	462.4	467.2	470.7	473.1
25°	450.5	452.9	460.0	462.4	464.8
27.5°	438.6	440.9	446.9	451.7	455.2
30°	426.6	429.0	436.2	442.1	444.5
32.5°	413.5	417.1	425.4	430.2	433.8
35°	399.2	402.8	411.1	419.5	423.1
37.5°	384.9	388.5	396.8	407.6	412.3
40°	368.2	373.0	383.7	398.0	400.4
42.5°	352.8	358.7	368.2	384.9	390.9
45°	334.9	340.8	353.9	371.8	381.4
47.5°	318.2	324.2	338.5	359.9	371.8
50°	297.9	306.3	324.2	349.2	361.1
52.5°	278.9	286.0	309.9	337.3	351.6
55°	258.6	266.9	295.5	325.3	340.8
57.5°	240.7	247.9	280.1	313.4	331.3
60°	218.1	227.6	264.6	300.3	318.2
62.5°	194.3	208.6	249.1	286.0	305.1
65°	171.6	188.3	234.8	271.7	290.8
67.5°	151.4	169.2	216.9	256.2	274.1
70°	127.5	150.2	199.0	237.2	257.4
72.5°	106.1	131.1	178.8	216.9	234.8
75°	84.6	112.0	158.5	190.7	201.4
77.5°	65.5	91.8	135.9	145.4	146.6
80°	48.9	72.7	101.3	102.5	106.1
82.5°	33.4	51.2	65.5	71.5	72.7
85°	21.5	29.8	36.9	38.1	40.5
87.5°	9.5	10.7	13.1	11.9	11.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)