

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: P312660

Luminaire Tested: **22FCZ2-29HE-UNV-L83050-RDP-CP250-W2A-U-3000K**

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: P312660  
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-L83050-RDP-CP250-W2A-U-3000K  
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**

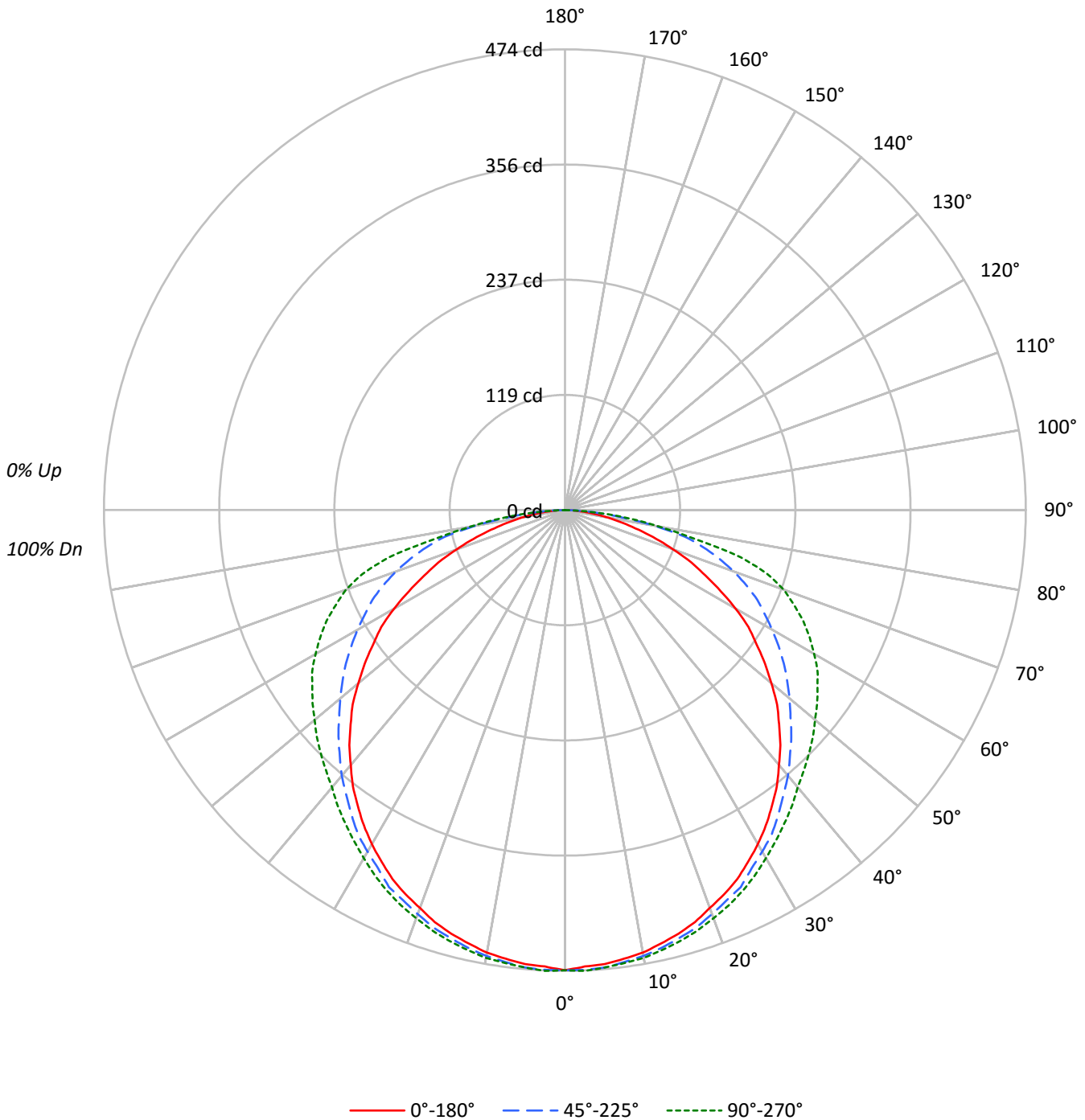
Lumens per Lamp: N/A  
Luminaire Lumens: 1507.0 lumens  
Efficiency: N/A  
Efficacy: 67.3 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 22.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
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



TEST NUMBER: P312660

CATALOG NUMBER: 22FCZ2-29HE-UNV-L83050-RDP-CP250-W2A-U-3000K

### Luminous Intensity Polar Plot





TEST NUMBER: P312660

CATALOG NUMBER: 22FCZ2-29HE-UNV-L83050-RDP-CP250-W2A-U-3000K

**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°	1274	1274	1274
5°	1267	1276	1276
10°	1263	1272	1278
15°	1257	1269	1279
20°	1248	1267	1279
25°	1244	1271	1284
30°	1233	1261	1285
35°	1220	1257	1293
40°	1203	1254	1309
45°	1185	1253	1350
50°	1160	1262	1406
55°	1129	1290	1488
60°	1092	1324	1593
65°	1016	1391	1722
70°	933	1456	1884
75°	818	1533	1948
80°	705	1460	1530
85°	618	1062	1164



TEST NUMBER: P312660

CATALOG NUMBER: 22FCZ2-29HE-UNV-L83050-RDP-CP250-W2A-U-3000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.8	3.0
10°-20°	128.6	8.5
20°-30°	196.2	13.0
30°-40°	239.5	15.9
40°-50°	256.1	17.0
50°-60°	247.2	16.4
60°-70°	212.8	14.1
70°-80°	144.0	9.6
80°-90°	38.0	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°	369.5	24.5
0°-40°	609.0	40.4
0°-60°	1112.3	73.8
0°-90°	1507.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1507.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	473	473	473	473	473	
5°	469	470	472	472	472	45
15°	451	452	456	458	459	127
25°	419	421	428	430	432	193
35°	371	375	382	390	394	232
45°	312	317	329	346	355	240
55°	241	248	275	303	317	216
65°	160	175	218	253	270	159
75°	79	104	147	177	187	84
85°	20	28	34	36	38	22
90°	0	0	0	0	0	



TEST NUMBER: P312660

CATALOG NUMBER: 22FCZ2-29HE-UNV-L83050-RDP-CP250-W2A-U-3000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	473.4	473.4	473.4	473.4	473.4
2.5°	470.0	471.2	473.4	473.4	474.5
5°	468.9	470.0	472.3	472.3	472.3
7.5°	465.6	466.7	468.9	470.0	470.0
10°	462.3	463.4	465.6	466.7	467.8
12.5°	456.7	457.9	461.2	463.4	463.4
15°	451.2	452.3	455.6	457.9	459.0
17.5°	444.6	446.8	450.1	452.3	453.4
20°	435.7	437.9	442.3	445.7	446.8
22.5°	427.9	430.1	434.6	437.9	440.1
25°	419.1	421.3	427.9	430.1	432.4
27.5°	408.0	410.2	415.7	420.2	423.5
30°	396.9	399.1	405.7	411.3	413.5
32.5°	384.7	388.0	395.8	400.2	403.5
35°	371.4	374.7	382.5	390.2	393.6
37.5°	358.1	361.4	369.2	379.1	383.6
40°	342.6	347.0	357.0	370.3	372.5
42.5°	328.1	333.7	342.6	358.1	363.6
45°	311.5	317.1	329.3	345.9	354.8
47.5°	296.0	301.5	314.8	334.8	345.9
50°	277.2	284.9	301.5	324.8	335.9
52.5°	259.4	266.1	288.2	313.7	327.0
55°	240.6	248.3	274.9	302.6	317.1
57.5°	223.9	230.6	260.5	291.6	308.2
60°	202.9	211.7	246.1	279.4	296.0
62.5°	180.7	194.0	231.7	266.1	283.8
65°	159.6	175.2	218.4	252.8	270.5
67.5°	140.8	157.4	201.8	238.4	255.0
70°	118.6	139.7	185.1	220.6	239.5
72.5°	98.7	121.9	166.3	201.8	218.4
75°	78.7	104.2	147.4	177.4	187.4
77.5°	61.0	85.4	126.4	135.2	136.4
80°	45.5	67.6	94.2	95.3	98.7
82.5°	31.0	47.7	61.0	66.5	67.6
85°	20.0	27.7	34.4	35.5	37.7
87.5°	8.9	10.0	12.2	11.1	11.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)