

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: P308103

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-HRP-CP250-W2A-U-5700K**

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: P308103  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22FCZ2-20HE-UNV-L82765-HRP-CP250-W2A-U-5700K  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 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**

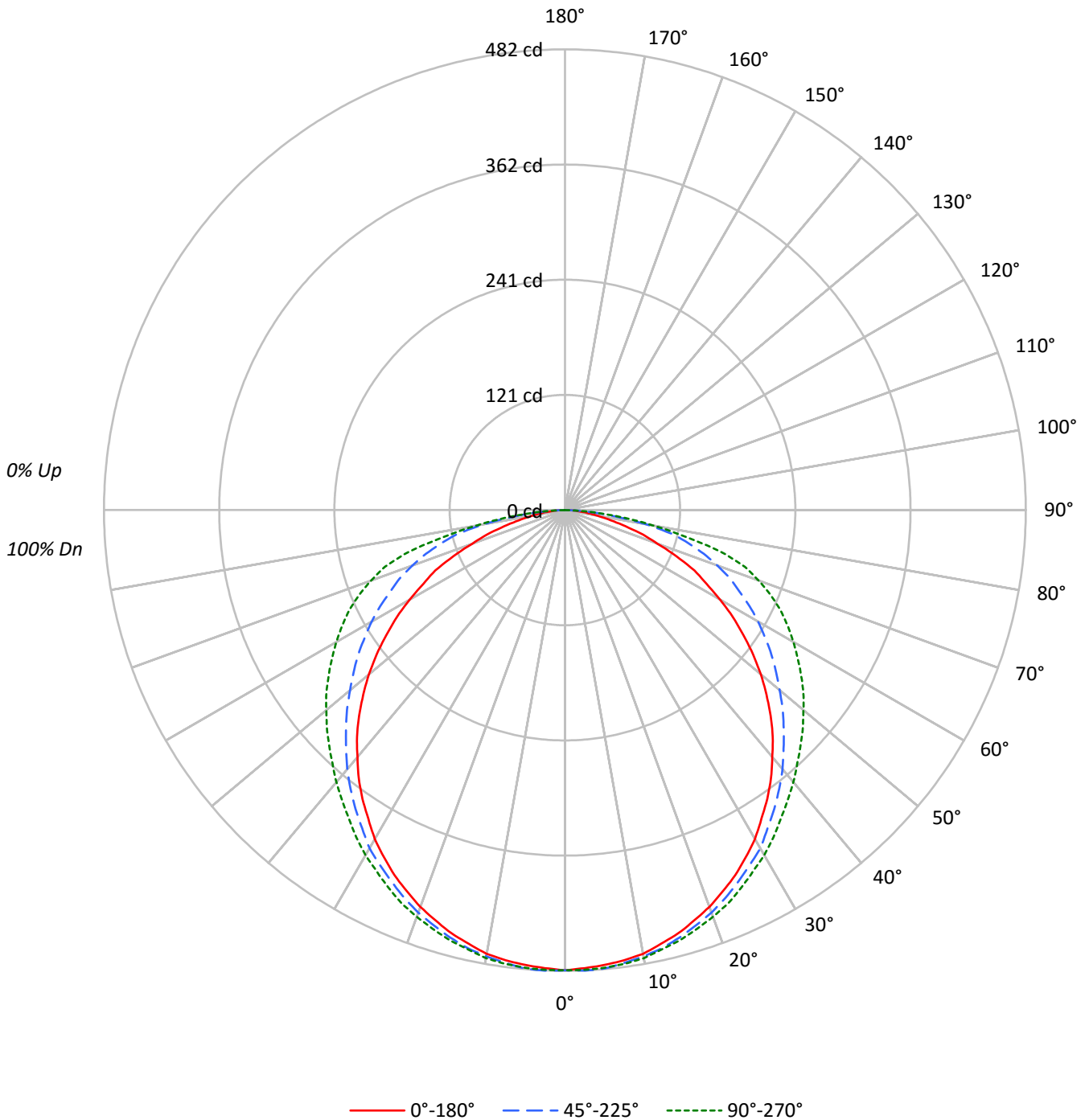
Lumens per Lamp: N/A  
Luminaire Lumens: 1462.0 lumens  
Efficiency: N/A  
Efficacy: 85.0 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82				82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	68				68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56				56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48				48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41				41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36				36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31				31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28				28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25				25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23				23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1295	1295	1295
5°	1290	1300	1298
10°	1288	1295	1300
15°	1277	1290	1297
20°	1265	1284	1297
25°	1252	1273	1295
30°	1235	1270	1295
35°	1212	1254	1294
40°	1186	1244	1306
45°	1158	1232	1327
50°	1120	1228	1363
55°	1069	1238	1415
60°	1008	1256	1484
65°	951	1280	1585
70°	813	1335	1698
75°	681	1390	1764
80°	558	1344	1472
85°	485	997	1081



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.6	3.1
10°-20°	130.5	8.9
20°-30°	197.8	13.5
30°-40°	238.8	16.3
40°-50°	251.0	17.2
50°-60°	236.1	16.2
60°-70°	196.9	13.5
70°-80°	130.5	8.9
80°-90°	34.8	2.4
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°	373.9	25.6
0°-40°	612.8	41.9
0°-60°	1099.9	75.2
0°-90°	1462.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1462.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	481	481	481	481	481	
5°	478	479	481	481	480	45
15°	458	460	463	465	466	129
25°	422	424	429	434	436	194
35°	369	373	382	390	394	231
45°	304	309	324	340	349	234
55°	228	238	264	290	302	204
65°	149	162	201	234	249	145
75°	66	91	134	161	170	71
85°	16	24	32	35	35	18
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	481.4	481.4	481.4	481.4	481.4
2.5°	479.6	480.5	482.3	482.3	481.4
5°	477.7	478.7	481.4	481.4	480.5
7.5°	475.0	475.9	477.7	479.6	478.7
10°	471.3	472.2	474.0	475.9	475.9
12.5°	464.8	465.7	469.4	470.4	470.4
15°	458.4	460.2	463.0	464.8	465.7
17.5°	450.1	451.9	455.6	459.3	459.3
20°	441.8	443.6	448.2	451.9	452.8
22.5°	431.6	434.4	439.0	443.6	445.5
25°	421.5	424.2	428.9	434.4	436.2
27.5°	409.5	412.3	418.7	425.2	426.1
30°	397.5	400.3	408.6	414.1	416.9
32.5°	382.7	386.4	394.7	403.0	405.8
35°	368.9	372.6	381.8	390.1	393.8
37.5°	354.1	357.8	368.0	378.1	382.7
40°	337.5	342.2	354.1	365.2	371.7
42.5°	321.9	326.5	338.5	353.2	359.7
45°	304.3	309.0	323.7	340.3	348.6
47.5°	285.9	291.4	309.0	329.2	337.5
50°	267.5	273.9	293.3	316.3	325.6
52.5°	248.1	256.4	278.5	303.4	314.5
55°	227.8	237.9	263.8	290.5	301.6
57.5°	208.4	217.7	248.1	276.7	288.7
60°	187.2	199.2	233.3	262.8	275.8
62.5°	166.9	179.8	217.7	249.0	262.8
65°	149.4	162.3	201.1	234.3	249.0
67.5°	126.3	143.9	187.2	218.6	233.3
70°	103.3	127.3	169.7	202.0	215.8
72.5°	85.8	108.8	152.2	184.5	197.4
75°	65.5	91.3	133.7	161.4	169.7
77.5°	48.9	75.6	114.4	128.2	129.1
80°	36.0	58.1	86.7	91.3	95.0
82.5°	24.9	40.6	56.3	61.8	63.6
85°	15.7	24.0	32.3	35.0	35.0
87.5°	8.3	9.2	11.1	11.1	11.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)