

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: P308067

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-HRP-CA08-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: P308067  
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-CA08-W2A-U-5700K  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 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**

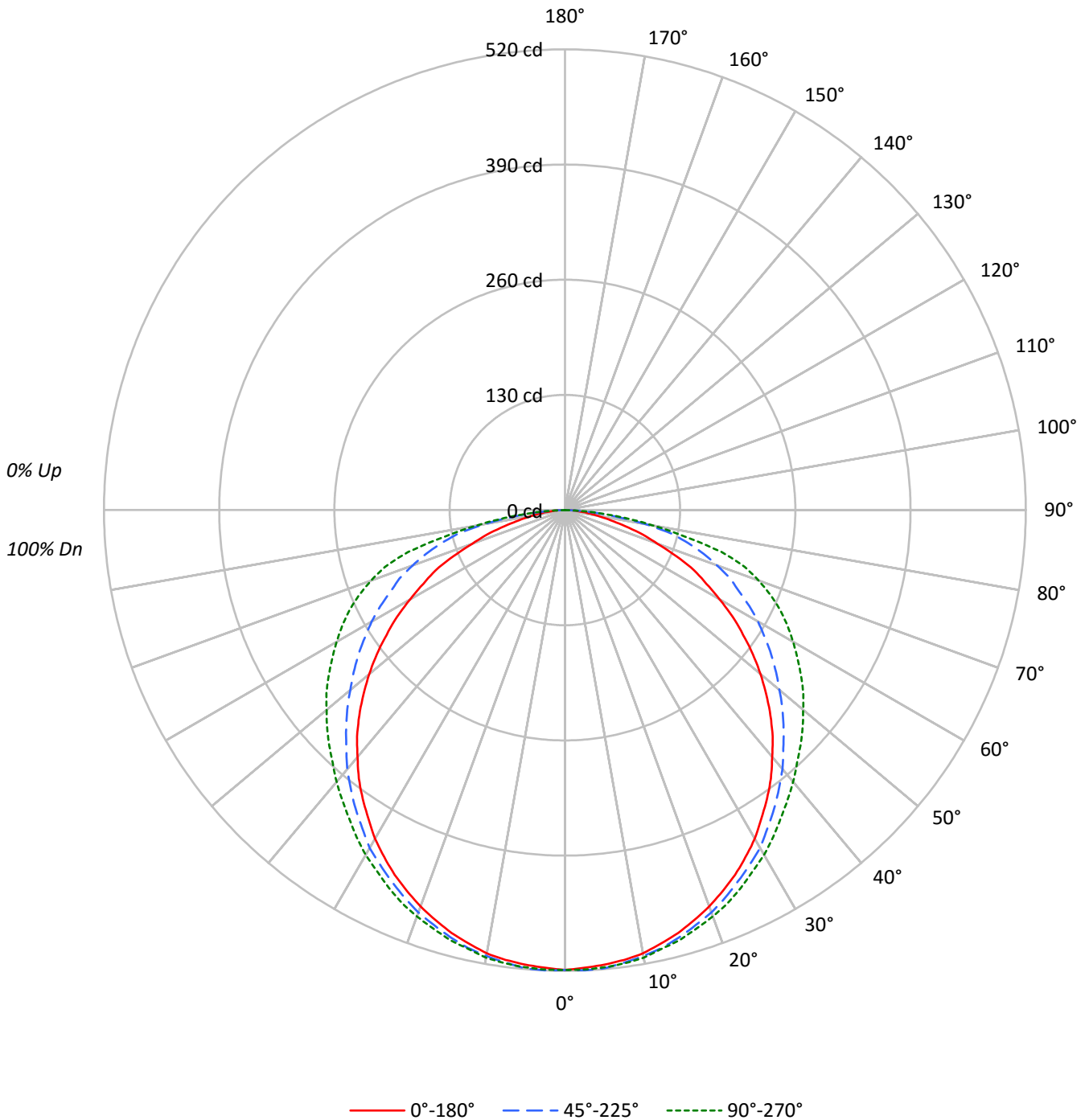
Lumens per Lamp: N/A  
Luminaire Lumens: 1576.0 lumens  
Efficiency: N/A  
Efficacy: 91.6 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

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

	0°	45°	90°
0°	1397	1397	1397
5°	1391	1402	1399
10°	1388	1396	1402
15°	1377	1390	1399
20°	1364	1384	1398
25°	1349	1373	1396
30°	1331	1368	1396
35°	1306	1352	1395
40°	1278	1341	1408
45°	1249	1328	1430
50°	1207	1323	1469
55°	1152	1334	1525
60°	1086	1354	1600
65°	1026	1380	1709
70°	876	1439	1830
75°	734	1499	1902
80°	601	1449	1587
85°	522	1074	1167



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.2	3.1
10°-20°	140.7	8.9
20°-30°	213.2	13.5
30°-40°	257.5	16.3
40°-50°	270.5	17.2
50°-60°	254.5	16.2
60°-70°	212.2	13.5
70°-80°	140.6	8.9
80°-90°	37.5	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°	403.1	25.6
0°-40°	660.6	41.9
0°-60°	1185.7	75.2
0°-90°	1576.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1576.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	519	519	519	519	519	
5°	515	516	519	519	518	49
15°	494	496	499	501	502	139
25°	454	457	462	468	470	209
35°	398	402	412	420	424	249
45°	328	333	349	367	376	253
55°	246	256	284	313	325	220
65°	161	175	217	252	268	157
75°	71	98	144	174	183	77
85°	17	26	35	38	38	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	519.0	519.0	519.0	519.0	519.0
2.5°	517.0	518.0	520.0	520.0	519.0
5°	515.0	516.0	519.0	519.0	518.0
7.5°	512.0	513.0	515.0	517.0	516.0
10°	508.0	509.0	511.0	513.0	513.0
12.5°	501.1	502.1	506.0	507.0	507.0
15°	494.1	496.1	499.1	501.1	502.1
17.5°	485.2	487.1	491.1	495.1	495.1
20°	476.2	478.2	483.2	487.1	488.1
22.5°	465.3	468.3	473.2	478.2	480.2
25°	454.3	457.3	462.3	468.3	470.2
27.5°	441.4	444.4	451.4	458.3	459.3
30°	428.5	431.5	440.4	446.4	449.4
32.5°	412.6	416.6	425.5	434.5	437.4
35°	397.7	401.6	411.6	420.5	424.5
37.5°	381.8	385.7	396.7	407.6	412.6
40°	363.9	368.8	381.8	393.7	400.7
42.5°	347.0	351.9	364.9	380.8	387.7
45°	328.1	333.0	349.0	366.9	375.8
47.5°	308.2	314.2	333.0	354.9	363.9
50°	288.3	295.3	316.1	341.0	350.9
52.5°	267.4	276.4	300.2	327.1	339.0
55°	245.6	256.5	284.3	313.2	325.1
57.5°	224.7	234.6	267.4	298.3	311.2
60°	201.8	214.7	251.5	283.3	297.3
62.5°	179.9	193.9	234.6	268.4	283.3
65°	161.1	175.0	216.7	252.5	268.4
67.5°	136.2	155.1	201.8	235.6	251.5
70°	111.3	137.2	182.9	217.7	232.6
72.5°	92.5	117.3	164.0	198.8	212.8
75°	70.6	98.4	144.2	174.0	182.9
77.5°	52.7	81.5	123.3	138.2	139.2
80°	38.8	62.6	93.5	98.4	102.4
82.5°	26.8	43.7	60.6	66.6	68.6
85°	16.9	25.8	34.8	37.8	37.8
87.5°	8.9	9.9	11.9	11.9	11.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)