

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: P308064

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-HRP-CA08-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: P308064  
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-4500K  
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: 1535.0 lumens  
Efficiency: N/A  
Efficacy: 90.3 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

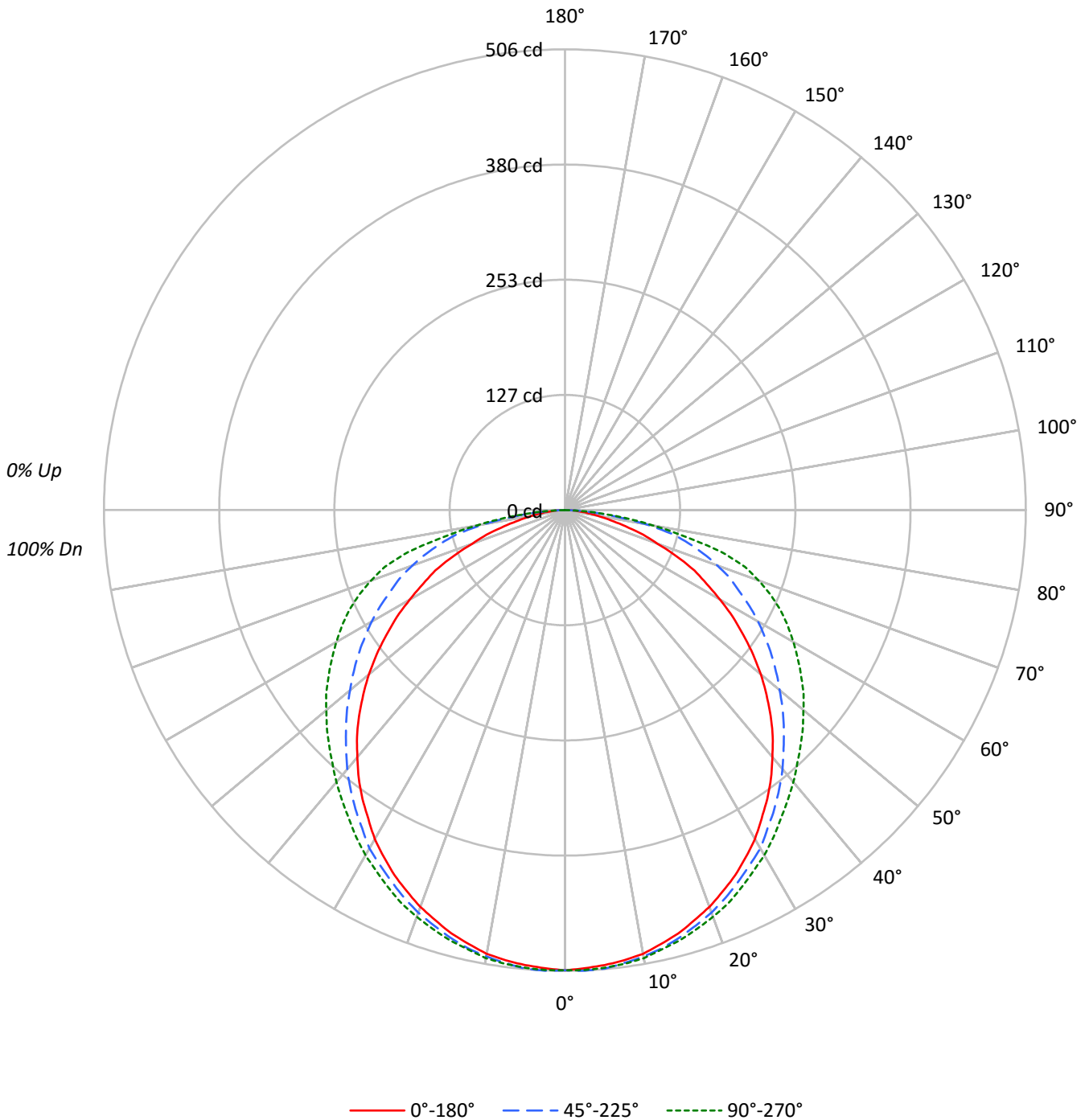
Input Watts (W): 17  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	83	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°	1360	1360	1360
5°	1355	1365	1363
10°	1352	1360	1365
15°	1341	1354	1362
20°	1328	1348	1361
25°	1314	1337	1360
30°	1297	1333	1360
35°	1272	1317	1358
40°	1245	1306	1371
45°	1216	1294	1393
50°	1176	1289	1431
55°	1122	1299	1485
60°	1058	1319	1558
65°	999	1344	1664
70°	854	1402	1783
75°	715	1460	1853
80°	586	1410	1545
85°	509	1047	1136



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.9	3.1
10°-20°	137.0	8.9
20°-30°	207.7	13.5
30°-40°	250.8	16.3
40°-50°	263.5	17.2
50°-60°	247.9	16.2
60°-70°	206.7	13.5
70°-80°	137.0	8.9
80°-90°	36.5	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°	392.6	25.6
0°-40°	643.4	41.9
0°-60°	1154.8	75.2
0°-90°	1535.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1535.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	506	506	506	506	506	
5°	502	503	506	506	504	48
15°	481	483	486	488	489	136
25°	442	445	450	456	458	204
35°	387	391	401	410	414	242
45°	320	324	340	357	366	246
55°	239	250	277	305	317	214
65°	157	170	211	246	261	153
75°	69	96	140	170	178	75
85°	16	25	34	37	37	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	505.5	505.5	505.5	505.5	505.5
2.5°	503.5	504.5	506.4	506.4	505.5
5°	501.6	502.6	505.5	505.5	504.5
7.5°	498.7	499.6	501.6	503.5	502.6
10°	494.8	495.8	497.7	499.6	499.6
12.5°	488.0	489.0	492.9	493.8	493.8
15°	481.3	483.2	486.1	488.0	489.0
17.5°	472.5	474.5	478.3	482.2	482.2
20°	463.8	465.8	470.6	474.5	475.4
22.5°	453.2	456.1	460.9	465.8	467.7
25°	442.5	445.4	450.3	456.1	458.0
27.5°	429.9	432.8	439.6	446.4	447.4
30°	417.3	420.2	429.0	434.8	437.7
32.5°	401.8	405.7	414.4	423.2	426.1
35°	387.3	391.2	400.9	409.6	413.5
37.5°	371.8	375.7	386.4	397.0	401.8
40°	354.4	359.2	371.8	383.5	390.2
42.5°	337.9	342.8	355.4	370.9	377.6
45°	319.5	324.4	339.9	357.3	366.0
47.5°	300.2	306.0	324.4	345.7	354.4
50°	280.8	287.6	307.9	332.1	341.8
52.5°	260.5	269.2	292.4	318.6	330.2
55°	239.2	249.8	276.9	305.0	316.6
57.5°	218.8	228.5	260.5	290.5	303.1
60°	196.6	209.2	245.0	276.0	289.5
62.5°	175.3	188.8	228.5	261.4	276.0
65°	156.9	170.4	211.1	246.0	261.4
67.5°	132.7	151.1	196.6	229.5	245.0
70°	108.5	133.6	178.2	212.1	226.6
72.5°	90.1	114.3	159.8	193.7	207.2
75°	68.8	95.9	140.4	169.5	178.2
77.5°	51.3	79.4	120.1	134.6	135.6
80°	37.8	61.0	91.0	95.9	99.7
82.5°	26.1	42.6	59.1	64.9	66.8
85°	16.5	25.2	33.9	36.8	36.8
87.5°	8.7	9.7	11.6	11.6	11.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)