

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: P313016

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-S-CA08-W2A-U-3500K**

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: P313016  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22FCZ2-44HE-UNV-L83050-S-CA08-W2A-U-3500K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.08" ACRYLIC SHEET  
Light Source: (168) 3500K 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**

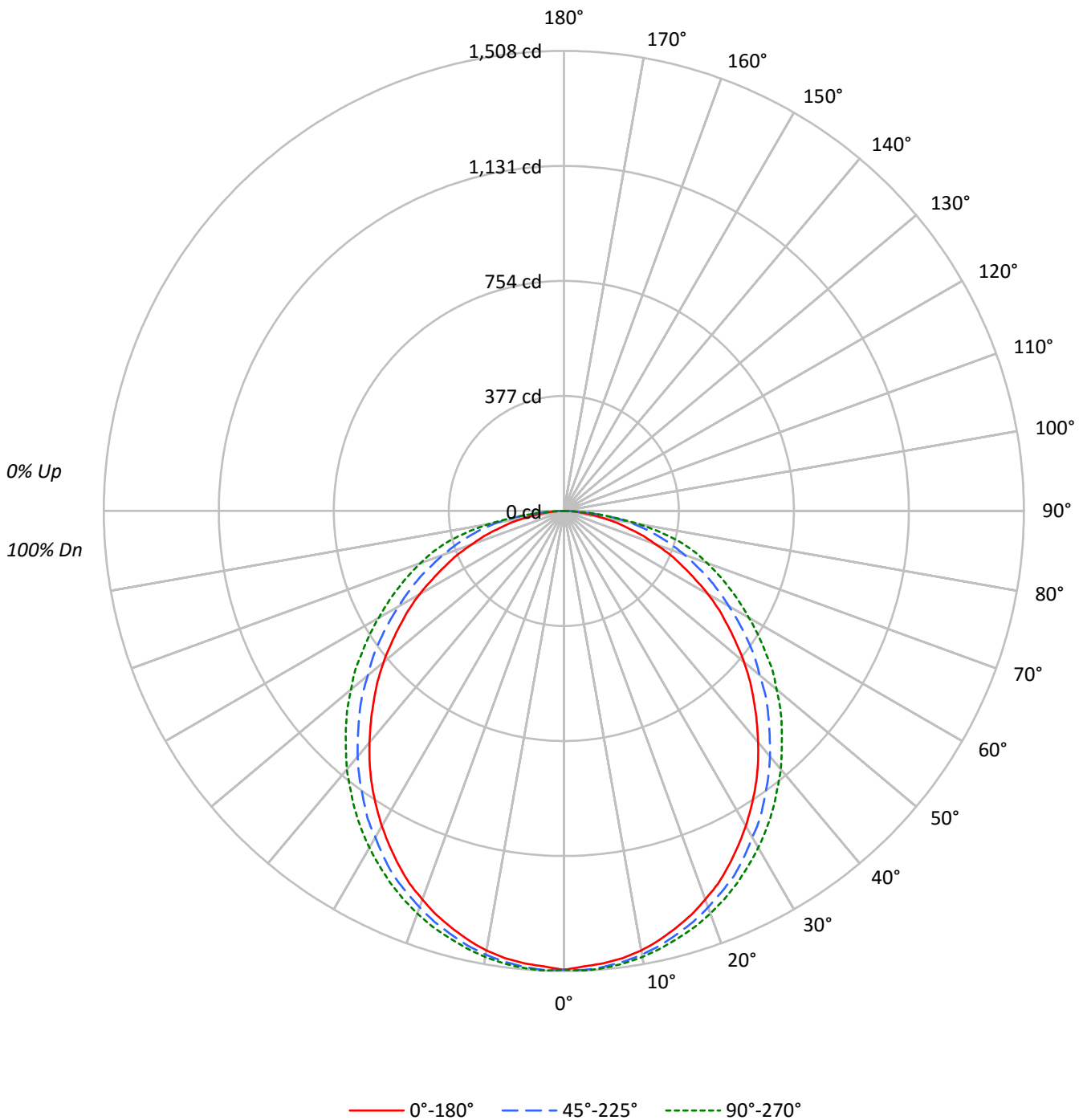
Lumens per Lamp: N/A  
Luminaire Lumens: 4197.0 lumens  
Efficiency: N/A  
Efficacy: 112.8 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 37.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	4047	4047	4047
5°	4020	4052	4062
10°	3997	4035	4056
15°	3944	3999	4037
20°	3881	3959	4021
25°	3803	3919	3994
30°	3706	3839	3961
35°	3602	3770	3924
40°	3481	3694	3887
45°	3354	3607	3845
50°	3230	3509	3812
55°	3078	3445	3785
60°	2940	3362	3773
65°	2743	3342	3815
70°	2526	3312	3928
75°	2280	3359	4133
80°	1973	3459	3885
85°	1633	2902	2902



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	142.2	3.4
10°-20°	404.7	9.6
20°-30°	605.6	14.4
30°-40°	717.2	17.1
40°-50°	730.9	17.4
50°-60°	655.1	15.6
60°-70°	512.9	12.2
70°-80°	330.7	7.9
80°-90°	97.7	2.3
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°	1152.6	27.5
0°-40°	1869.7	44.5
0°-60°	3255.7	77.6
0°-90°	4197.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4197.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1504	1504	1504	1504	1504	
5°	1488	1492	1500	1502	1504	141
15°	1416	1424	1435	1447	1449	399
25°	1281	1292	1320	1338	1345	590
35°	1097	1110	1148	1183	1194	685
45°	881	901	948	997	1010	681
55°	656	678	734	785	807	588
65°	431	456	525	576	599	428
75°	219	253	323	378	398	235
85°	53	72	94	94	94	62
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1503.9	1503.9	1503.9	1503.9	1503.9
2.5°	1494.1	1498.0	1505.9	1507.8	1507.8
5°	1488.3	1492.2	1500.0	1502.0	1503.9
7.5°	1478.5	1480.4	1490.2	1494.1	1496.1
10°	1462.8	1466.7	1476.5	1482.4	1484.3
12.5°	1441.3	1447.1	1458.9	1466.7	1468.7
15°	1415.8	1423.6	1435.4	1447.1	1449.1
17.5°	1388.4	1396.2	1411.9	1425.6	1429.5
20°	1355.1	1364.9	1382.5	1398.2	1404.0
22.5°	1321.8	1329.6	1351.2	1370.8	1376.6
25°	1280.7	1292.4	1319.8	1337.5	1345.3
27.5°	1237.6	1251.3	1278.7	1302.2	1310.1
30°	1192.6	1206.3	1235.6	1265.0	1274.8
32.5°	1145.6	1161.2	1196.5	1225.8	1235.6
35°	1096.6	1110.3	1147.5	1182.8	1194.5
37.5°	1045.7	1057.4	1100.5	1137.7	1149.5
40°	990.9	1006.5	1051.6	1094.6	1106.4
42.5°	936.0	953.7	998.7	1045.7	1057.4
45°	881.2	900.8	947.8	996.7	1010.4
47.5°	828.3	844.0	896.9	943.9	963.4
50°	771.5	787.2	838.1	891.0	910.6
52.5°	712.8	734.3	789.2	840.1	863.6
55°	656.0	677.5	734.3	785.2	806.8
57.5°	603.1	620.8	679.5	732.4	753.9
60°	546.3	562.0	624.7	681.5	701.0
62.5°	485.6	509.1	573.8	626.6	650.1
65°	430.8	456.3	524.8	575.7	599.2
67.5°	379.9	403.4	470.0	524.8	550.3
70°	321.1	352.5	421.0	475.8	499.3
72.5°	274.2	301.6	372.1	426.9	452.3
75°	219.3	252.6	323.1	377.9	397.5
77.5°	174.3	207.6	274.2	317.2	327.0
80°	127.3	160.6	223.2	244.8	250.7
82.5°	86.2	117.5	160.6	166.4	168.4
85°	52.9	72.5	94.0	94.0	94.0
87.5°	25.5	29.4	33.3	31.3	31.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)