

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: P313017

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-S-CA08-W2A-U-4000K**

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: P313017  
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-4000K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.08" ACRYLIC SHEET  
Light Source: (168) 4000K 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**

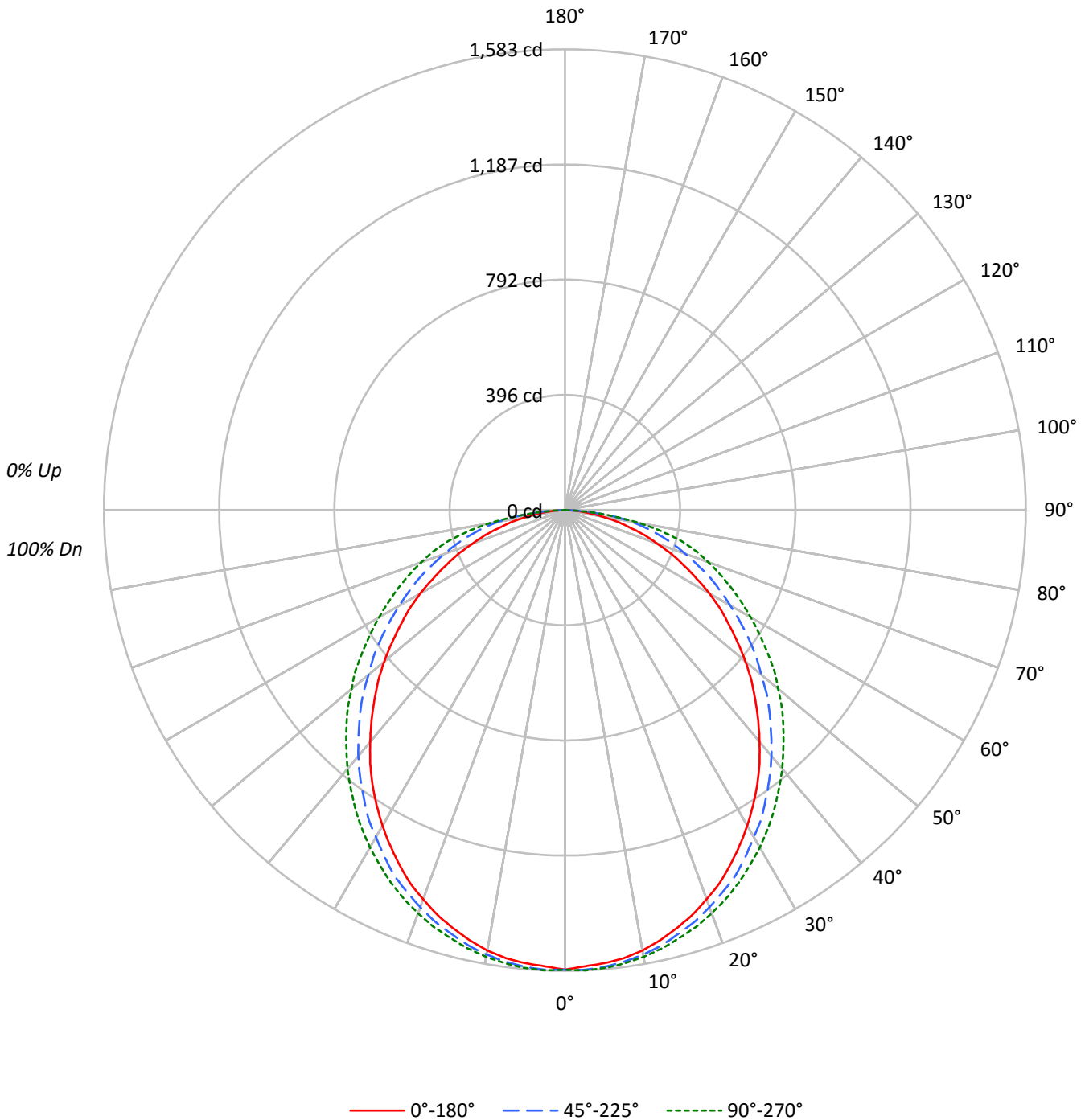
Lumens per Lamp: N/A  
Luminaire Lumens: 4407.0 lumens  
Efficiency: N/A  
Efficacy: 115.7 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 38.1  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	4250	4250	4250
5°	4221	4255	4266
10°	4197	4236	4259
15°	4142	4199	4239
20°	4075	4157	4222
25°	3993	4115	4194
30°	3891	4032	4159
35°	3783	3958	4120
40°	3655	3879	4081
45°	3521	3787	4038
50°	3391	3684	4003
55°	3232	3618	3975
60°	3088	3530	3962
65°	2881	3509	4006
70°	2653	3478	4125
75°	2394	3528	4340
80°	2072	3632	4079
85°	1714	3047	3047



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	149.3	3.4
10°-20°	425.0	9.6
20°-30°	635.9	14.4
30°-40°	753.1	17.1
40°-50°	767.5	17.4
50°-60°	687.9	15.6
60°-70°	538.5	12.2
70°-80°	347.3	7.9
80°-90°	102.6	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°	1210.2	27.5
0°-40°	1963.3	44.5
0°-60°	3418.6	77.6
0°-90°	4407.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4407.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1579	1579	1579	1579	1579	
5°	1563	1567	1575	1577	1579	148
15°	1487	1495	1507	1520	1522	419
25°	1345	1357	1386	1404	1413	619
35°	1152	1166	1205	1242	1254	720
45°	925	946	995	1047	1061	715
55°	689	711	771	824	847	618
65°	452	479	551	604	629	449
75°	230	265	339	397	417	247
85°	56	76	99	99	99	65
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1579.2	1579.2	1579.2	1579.2	1579.2
2.5°	1568.9	1573.0	1581.2	1583.3	1583.3
5°	1562.7	1566.8	1575.1	1577.1	1579.2
7.5°	1552.4	1554.5	1564.8	1568.9	1570.9
10°	1536.0	1540.1	1550.4	1556.5	1558.6
12.5°	1513.4	1519.5	1531.9	1540.1	1542.2
15°	1486.6	1494.9	1507.2	1519.5	1521.6
17.5°	1457.8	1466.1	1482.5	1496.9	1501.0
20°	1422.9	1433.2	1451.7	1468.1	1474.3
22.5°	1387.9	1396.2	1418.8	1439.3	1445.5
25°	1344.8	1357.1	1385.9	1404.4	1412.6
27.5°	1299.5	1313.9	1342.7	1367.4	1375.6
30°	1252.2	1266.6	1297.5	1328.3	1338.6
32.5°	1202.9	1219.3	1256.3	1287.2	1297.5
35°	1151.5	1165.9	1204.9	1241.9	1254.3
37.5°	1098.0	1110.4	1155.6	1194.7	1207.0
40°	1040.4	1056.9	1104.2	1149.4	1161.8
42.5°	982.9	1001.4	1048.7	1098.0	1110.4
45°	925.3	945.9	995.2	1046.6	1061.0
47.5°	869.8	886.2	941.7	991.1	1011.7
50°	810.1	826.6	880.1	935.6	956.1
52.5°	748.5	771.1	828.7	882.1	906.8
55°	688.8	711.4	771.1	824.5	847.2
57.5°	633.3	651.8	713.5	769.0	791.6
60°	573.7	590.1	655.9	715.6	736.1
62.5°	509.9	534.6	602.5	658.0	682.7
65°	452.4	479.1	551.1	604.5	629.2
67.5°	398.9	423.6	493.5	551.1	577.8
70°	337.2	370.1	442.1	499.7	524.3
72.5°	287.9	316.7	390.7	448.3	475.0
75°	230.3	265.3	339.3	396.8	417.4
77.5°	183.0	218.0	287.9	333.1	343.4
80°	133.7	168.6	234.4	257.0	263.2
82.5°	90.5	123.4	168.6	174.8	176.8
85°	55.5	76.1	98.7	98.7	98.7
87.5°	26.7	30.8	35.0	32.9	32.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)