

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: P308831

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-CA08-W2A-U-5500K**

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: P308831  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)  
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-L82765-CA08-W2A-U-5500K  
Description: 2'X2' TROFFER LED MODULE, RIBBED 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**

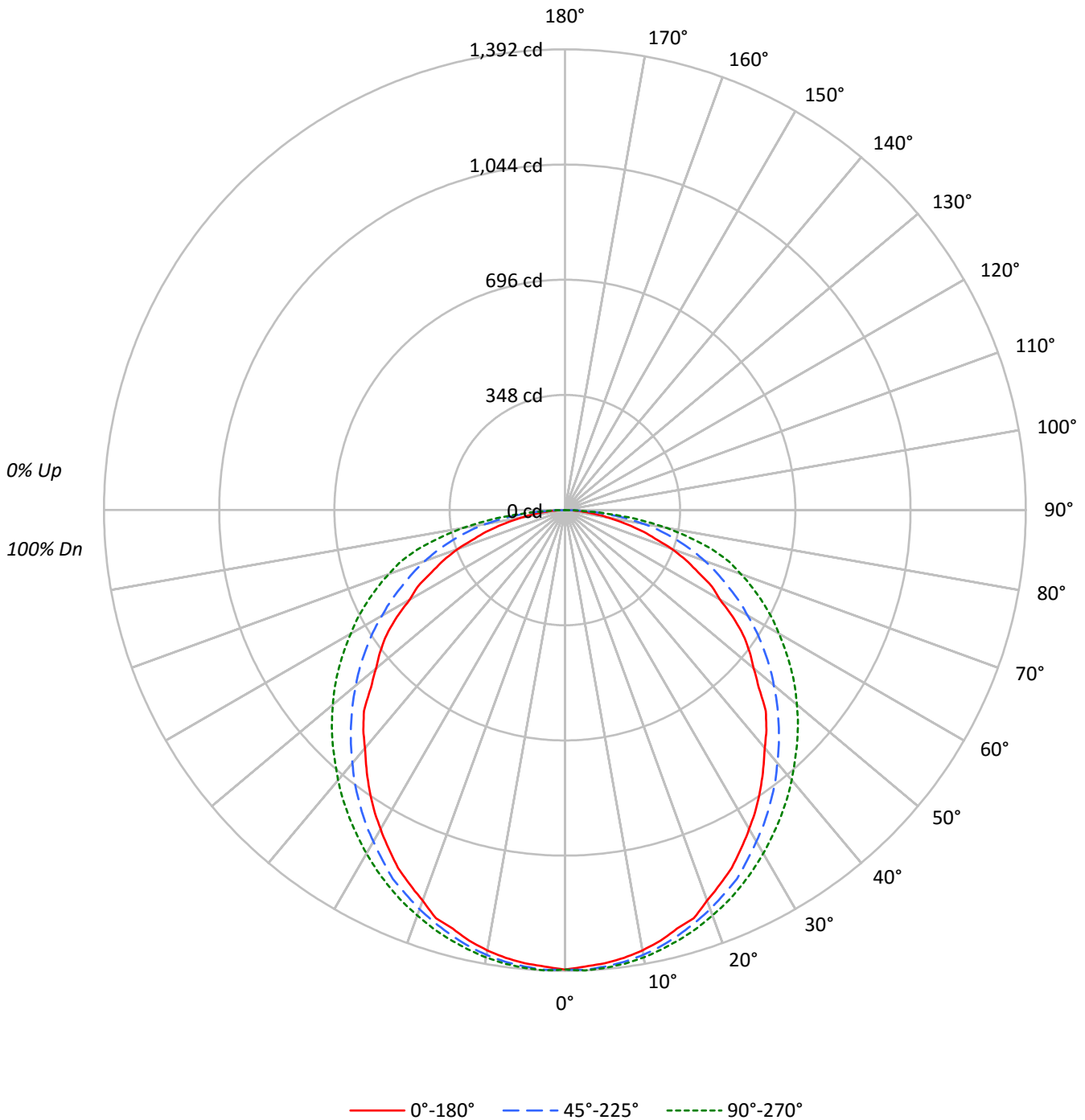
Lumens per Lamp: N/A  
Luminaire Lumens: 4138.0 lumens  
Efficiency: N/A  
Efficacy: 108.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 38.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	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	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
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	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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

	0°	45°	90°
0°	3736	3736	3736
5°	3713	3740	3750
10°	3691	3729	3750
15°	3647	3702	3741
20°	3596	3675	3732
25°	3540	3652	3728
30°	3458	3594	3723
35°	3383	3552	3728
40°	3298	3507	3743
45°	3264	3475	3776
50°	3118	3449	3831
55°	3085	3438	3912
60°	2910	3432	4019
65°	2825	3456	4199
70°	2711	3537	4456
75°	2471	3644	4798
80°	2118	3775	4849
85°	1714	3606	4159



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	131.4	3.2
10°-20°	374.8	9.1
20°-30°	564.0	13.6
30°-40°	677.0	16.4
40°-50°	707.6	17.1
50°-60°	659.4	15.9
60°-70°	540.8	13.1
70°-80°	364.4	8.8
80°-90°	118.7	2.9
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°	1070.2	25.9
0°-40°	1747.1	42.2
0°-60°	3114.1	75.3
0°-90°	4138.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4138.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1388	1388	1388	1388	1388	
5°	1374	1378	1384	1386	1388	130
15°	1309	1317	1329	1341	1343	370
25°	1192	1200	1230	1248	1256	548
35°	1030	1044	1081	1119	1135	644
45°	858	864	913	968	992	655
55°	658	669	733	802	834	583
65°	444	463	543	622	660	441
75°	238	263	350	430	462	250
85°	56	79	117	137	135	66
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1388.3	1388.3	1388.3	1388.3	1388.3
2.5°	1380.4	1384.4	1390.3	1392.3	1392.3
5°	1374.5	1378.4	1384.4	1386.4	1388.3
7.5°	1364.6	1368.5	1376.5	1380.4	1382.4
10°	1350.7	1354.7	1364.6	1370.5	1372.5
12.5°	1332.9	1336.8	1348.7	1356.6	1358.6
15°	1309.1	1317.0	1328.9	1340.8	1342.8
17.5°	1293.3	1291.3	1307.1	1321.0	1325.0
20°	1255.6	1265.5	1283.4	1299.2	1303.2
22.5°	1224.0	1231.9	1255.6	1273.5	1281.4
25°	1192.3	1200.2	1229.9	1247.7	1255.6
27.5°	1152.7	1164.5	1192.3	1218.0	1227.9
30°	1113.0	1124.9	1156.6	1186.3	1198.2
32.5°	1073.4	1087.3	1121.0	1152.7	1166.5
35°	1029.9	1043.7	1081.4	1119.0	1134.8
37.5°	984.3	1002.1	1041.7	1083.3	1101.2
40°	938.8	956.6	998.2	1045.7	1065.5
42.5°	901.1	909.1	956.6	1008.1	1027.9
45°	857.6	863.5	913.0	968.5	992.2
47.5°	794.2	816.0	869.4	930.8	954.6
50°	744.7	768.4	823.9	889.2	915.0
52.5°	703.1	718.9	780.3	845.7	875.4
55°	657.5	669.4	732.8	802.1	833.8
57.5°	602.1	623.9	687.2	758.5	790.2
60°	540.7	568.4	637.7	715.0	746.7
62.5°	501.1	516.9	592.2	669.4	705.1
65°	443.6	463.4	542.7	621.9	659.5
67.5°	396.1	415.9	497.1	576.3	614.0
70°	344.6	364.4	449.6	528.8	566.4
72.5°	285.2	312.9	402.0	481.3	520.9
75°	237.7	263.4	350.5	429.8	461.5
77.5°	184.2	217.9	299.1	364.4	388.2
80°	136.7	170.3	243.6	291.1	312.9
82.5°	93.1	126.8	182.2	217.9	229.7
85°	55.5	79.2	116.8	136.7	134.7
87.5°	25.7	33.7	47.5	47.5	45.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)