

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: P308785

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-CA08-W2A-U-5000K**

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: P308785  
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: 22FCZ2-39HE-UNV-L82765-CA08-W2A-U-5000K  
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**

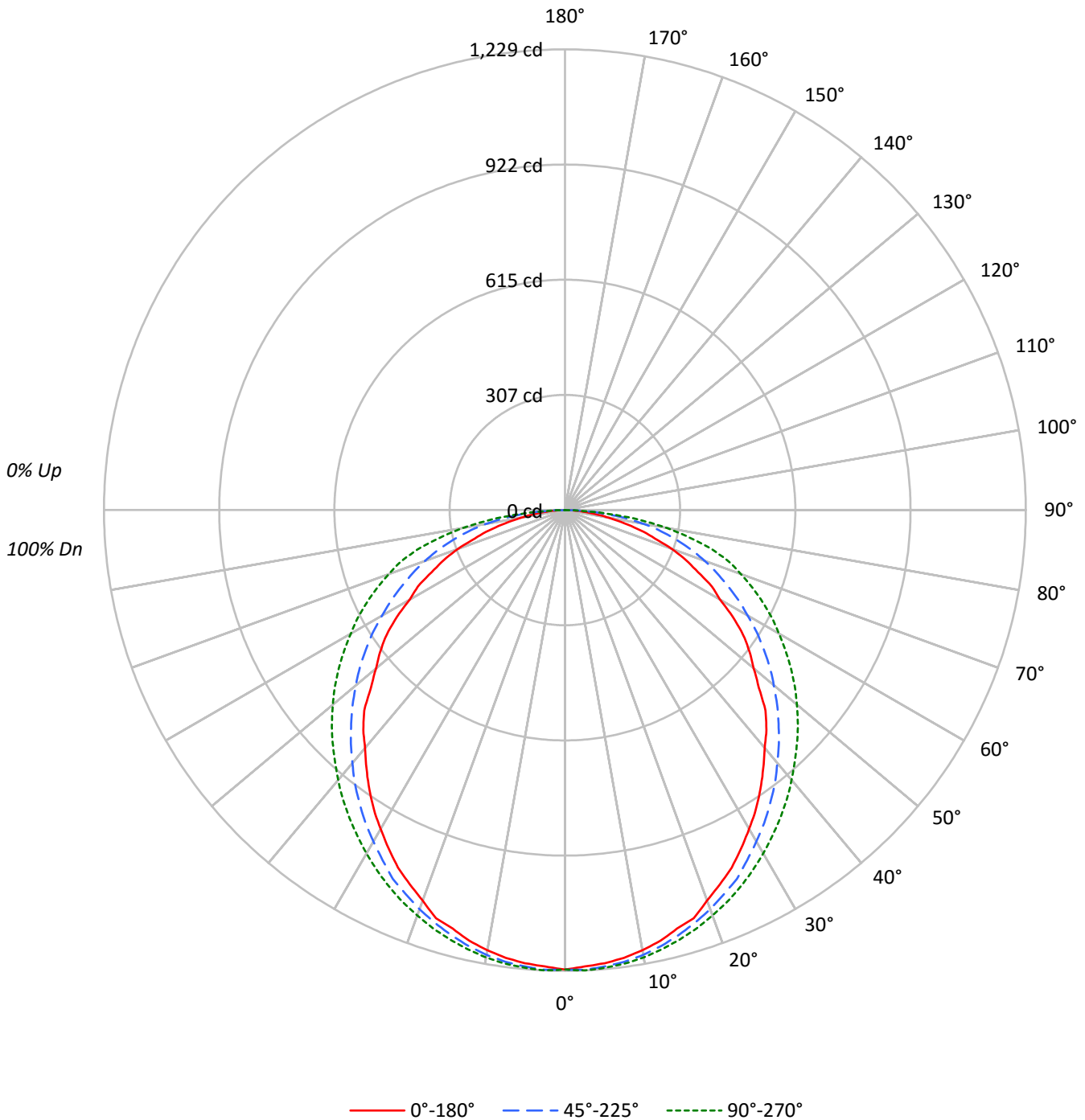
Lumens per Lamp: N/A  
Luminaire Lumens: 3653.0 lumens  
Efficiency: N/A  
Efficacy: 110.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 33.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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					100			
1	108	103	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82					82			
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67					67			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56					56			
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48					48			
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41					41			
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36					36			
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32					32			
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28					28			
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25					25			
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23					23			

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

	0°	45°	90°
0°	3298	3298	3298
5°	3278	3301	3311
10°	3258	3292	3311
15°	3220	3268	3302
20°	3174	3244	3294
25°	3125	3224	3291
30°	3053	3173	3287
35°	2987	3136	3291
40°	2911	3095	3304
45°	2881	3067	3333
50°	2752	3045	3382
55°	2723	3035	3453
60°	2569	3030	3547
65°	2493	3051	3707
70°	2393	3123	3934
75°	2181	3218	4236
80°	1869	3333	4280
85°	1513	3186	3671



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.0	3.2
10°-20°	330.8	9.1
20°-30°	497.9	13.6
30°-40°	597.6	16.4
40°-50°	624.6	17.1
50°-60°	582.1	15.9
60°-70°	477.4	13.1
70°-80°	321.7	8.8
80°-90°	104.8	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°	944.7	25.9
0°-40°	1542.4	42.2
0°-60°	2749.1	75.3
0°-90°	3653.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3653.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1226	1226	1226	1226	1226	
5°	1213	1217	1222	1224	1226	115
15°	1156	1163	1173	1184	1185	327
25°	1052	1060	1086	1102	1108	484
35°	909	921	955	988	1002	568
45°	757	762	806	855	876	578
55°	580	591	647	708	736	514
65°	392	409	479	549	582	390
75°	210	232	310	379	407	221
85°	49	70	103	121	119	58
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1225.6	1225.6	1225.6	1225.6	1225.6
2.5°	1218.6	1222.1	1227.4	1229.1	1229.1
5°	1213.4	1216.9	1222.1	1223.9	1225.6
7.5°	1204.6	1208.1	1215.1	1218.6	1220.4
10°	1192.4	1195.9	1204.6	1209.9	1211.6
12.5°	1176.7	1180.2	1190.6	1197.6	1199.4
15°	1155.7	1162.7	1173.2	1183.7	1185.4
17.5°	1141.7	1139.9	1153.9	1166.2	1169.7
20°	1108.5	1117.2	1132.9	1146.9	1150.4
22.5°	1080.5	1087.5	1108.5	1124.2	1131.2
25°	1052.5	1059.5	1085.7	1101.5	1108.5
27.5°	1017.6	1028.0	1052.5	1075.3	1084.0
30°	982.6	993.1	1021.1	1047.3	1057.8
32.5°	947.6	959.9	989.6	1017.6	1029.8
35°	909.2	921.4	954.6	987.8	1001.8
37.5°	868.9	884.7	919.6	956.4	972.1
40°	828.7	844.5	881.2	923.1	940.6
42.5°	795.5	802.5	844.5	889.9	907.4
45°	757.0	762.3	806.0	855.0	875.9
47.5°	701.1	720.3	767.5	821.7	842.7
50°	657.4	678.4	727.3	785.0	807.8
52.5°	620.7	634.7	688.9	746.6	772.8
55°	580.5	591.0	646.9	708.1	736.1
57.5°	531.5	550.7	606.7	669.6	697.6
60°	477.3	501.8	563.0	631.2	659.1
62.5°	442.3	456.3	522.8	591.0	622.4
65°	391.6	409.1	479.1	549.0	582.2
67.5°	349.7	367.2	438.8	508.8	542.0
70°	304.2	321.7	396.9	466.8	500.0
72.5°	251.8	276.2	354.9	424.9	459.8
75°	209.8	232.5	309.5	379.4	407.4
77.5°	162.6	192.3	264.0	321.7	342.7
80°	120.6	150.4	215.1	257.0	276.2
82.5°	82.2	111.9	160.9	192.3	202.8
85°	49.0	69.9	103.2	120.6	118.9
87.5°	22.7	29.7	42.0	42.0	40.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)