

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: P309092

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-S-CP250-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: P309092  
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: 22FCZ2-39HE-UNV-L82765-S-CP250-W2A-U-5500K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.250" POLYCARB 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**

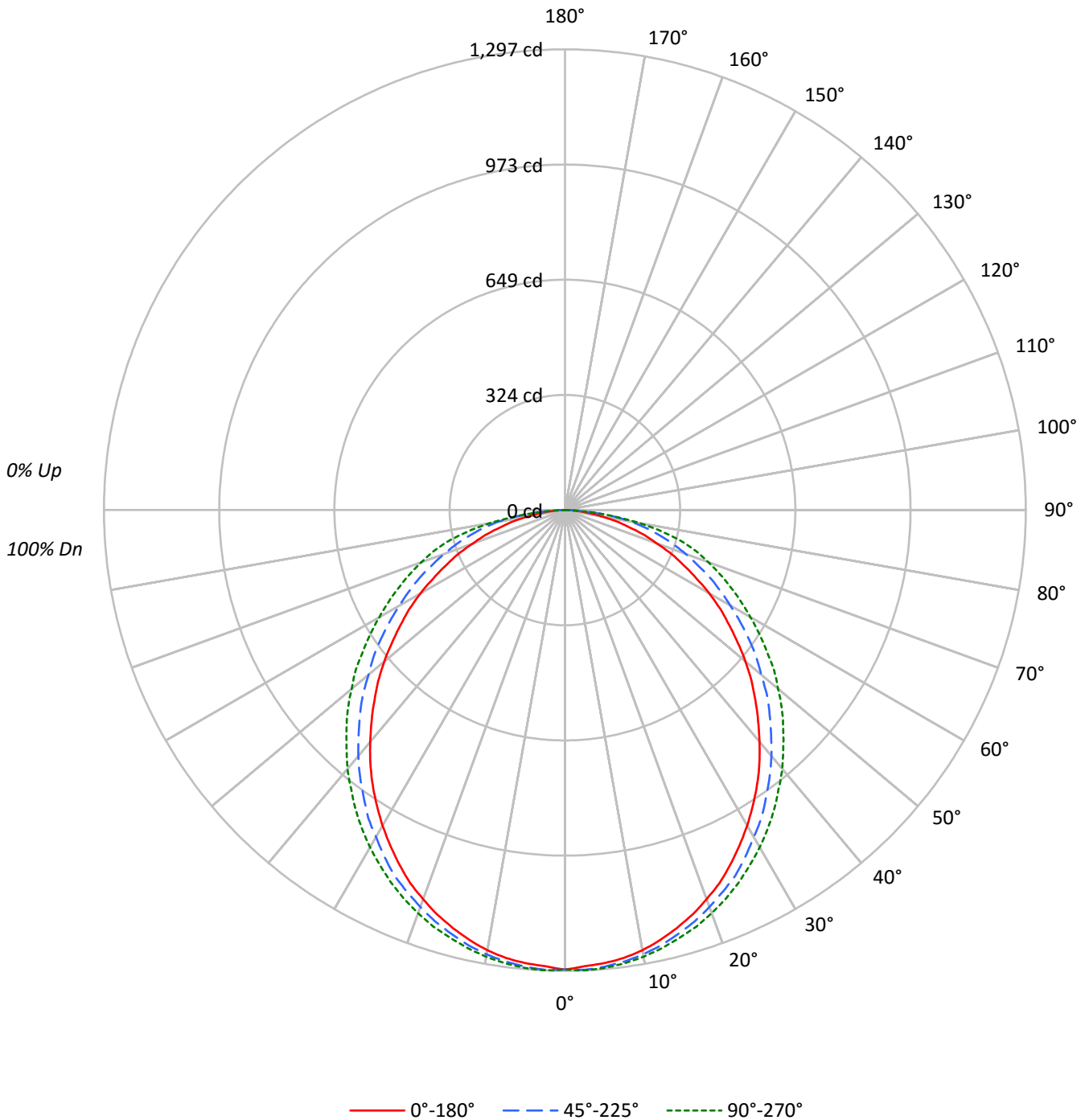
Lumens per Lamp: N/A  
Luminaire Lumens: 3610.0 lumens  
Efficiency: N/A  
Efficacy: 108.4 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 33.3  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3481	3481	3481
5°	3458	3485	3494
10°	3438	3470	3489
15°	3393	3439	3472
20°	3338	3405	3458
25°	3271	3371	3436
30°	3187	3302	3407
35°	3098	3242	3375
40°	2994	3177	3343
45°	2885	3102	3307
50°	2778	3018	3279
55°	2647	2963	3255
60°	2529	2892	3245
65°	2360	2874	3282
70°	2173	2849	3379
75°	1961	2889	3555
80°	1697	2975	3341
85°	1405	2495	2495



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.3	3.4
10°-20°	348.1	9.6
20°-30°	520.9	14.4
30°-40°	616.9	17.1
40°-50°	628.7	17.4
50°-60°	563.5	15.6
60°-70°	441.1	12.2
70°-80°	284.5	7.9
80°-90°	84.0	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°	991.4	27.5
0°-40°	1608.2	44.5
0°-60°	2800.3	77.6
0°-90°	3610.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3610.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1294	1294	1294	1294	1294	
5°	1280	1284	1290	1292	1294	122
15°	1218	1224	1235	1245	1246	343
25°	1102	1112	1135	1150	1157	507
35°	943	955	987	1017	1027	589
45°	758	775	815	857	869	585
55°	564	583	632	675	694	506
65°	371	392	451	495	515	368
75°	189	217	278	325	342	202
85°	46	62	81	81	81	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1293.6	1293.6	1293.6	1293.6	1293.6
2.5°	1285.2	1288.5	1295.3	1296.9	1296.9
5°	1280.1	1283.5	1290.2	1291.9	1293.6
7.5°	1271.7	1273.4	1281.8	1285.2	1286.8
10°	1258.2	1261.6	1270.0	1275.0	1276.7
12.5°	1239.7	1244.7	1254.8	1261.6	1263.3
15°	1217.8	1224.5	1234.6	1244.7	1246.4
17.5°	1194.2	1200.9	1214.4	1226.2	1229.6
20°	1165.6	1174.0	1189.1	1202.6	1207.7
22.5°	1136.9	1143.7	1162.2	1179.0	1184.1
25°	1101.6	1111.7	1135.2	1150.4	1157.1
27.5°	1064.5	1076.3	1099.9	1120.1	1126.8
30°	1025.8	1037.6	1062.8	1088.1	1096.5
32.5°	985.3	998.8	1029.1	1054.4	1062.8
35°	943.2	955.0	987.0	1017.3	1027.4
37.5°	899.4	909.5	946.6	978.6	988.7
40°	852.3	865.8	904.5	941.5	951.7
42.5°	805.1	820.3	859.0	899.4	909.5
45°	758.0	774.8	815.2	857.3	869.1
47.5°	712.5	726.0	771.4	811.9	828.7
50°	663.6	677.1	720.9	766.4	783.2
52.5°	613.1	631.6	678.8	722.6	742.8
55°	564.3	582.8	631.6	675.4	693.9
57.5°	518.8	533.9	584.5	629.9	648.5
60°	469.9	483.4	537.3	586.2	603.0
62.5°	417.7	437.9	493.5	539.0	559.2
65°	370.6	392.5	451.4	495.2	515.4
67.5°	326.8	347.0	404.2	451.4	473.3
70°	276.2	303.2	362.1	409.3	429.5
72.5°	235.8	259.4	320.0	367.2	389.1
75°	188.6	217.3	277.9	325.1	341.9
77.5°	149.9	178.5	235.8	272.9	281.3
80°	109.5	138.1	192.0	210.5	215.6
82.5°	74.1	101.1	138.1	143.2	144.9
85°	45.5	62.3	80.8	80.8	80.8
87.5°	21.9	25.3	28.6	26.9	26.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)