

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: P309060

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-S-CA125-W2A-U-3000K**

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: P309060  
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-CA125-W2A-U-3000K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" 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**

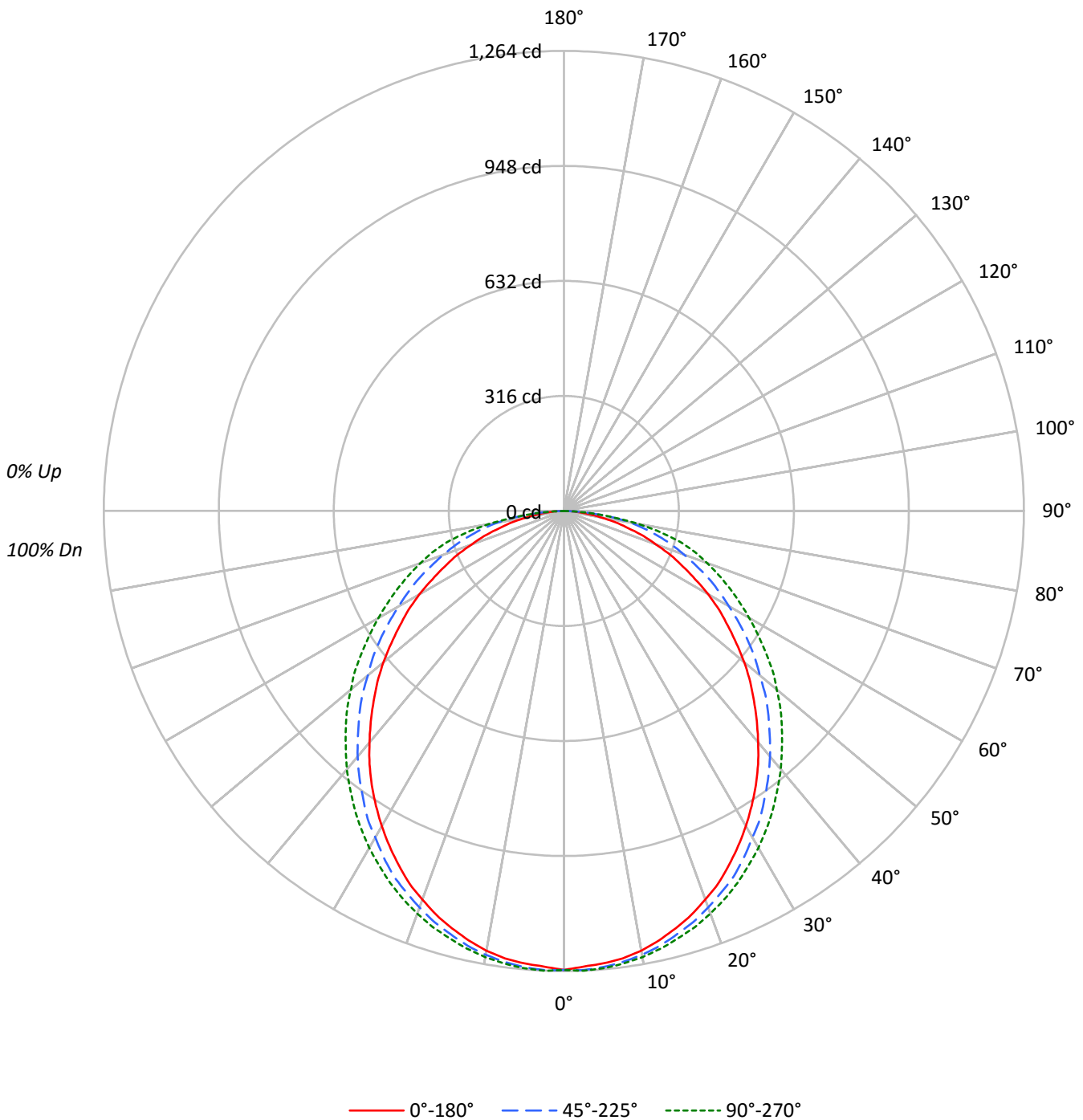
Lumens per Lamp: N/A  
Luminaire Lumens: 3519.0 lumens  
Efficiency: N/A  
Efficacy: 109.3 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 32.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3393	3393	3393
5°	3371	3397	3406
10°	3351	3383	3401
15°	3307	3353	3385
20°	3254	3320	3371
25°	3188	3286	3349
30°	3107	3219	3321
35°	3021	3161	3290
40°	2918	3097	3259
45°	2812	3024	3224
50°	2708	2942	3196
55°	2580	2889	3174
60°	2465	2819	3164
65°	2300	2802	3199
70°	2119	2777	3294
75°	1912	2817	3465
80°	1654	2901	3257
85°	1368	2433	2433



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.2	3.4
10°-20°	339.4	9.6
20°-30°	507.8	14.4
30°-40°	601.3	17.1
40°-50°	612.8	17.4
50°-60°	549.3	15.6
60°-70°	430.0	12.2
70°-80°	277.3	7.9
80°-90°	81.9	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°	966.4	27.5
0°-40°	1567.7	44.5
0°-60°	2729.8	77.6
0°-90°	3519.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3519.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1261	1261	1261	1261	1261	
5°	1248	1251	1258	1259	1261	118
15°	1187	1194	1204	1213	1215	335
25°	1074	1084	1107	1121	1128	494
35°	920	931	962	992	1002	575
45°	739	755	795	836	847	571
55°	550	568	616	658	676	493
65°	361	383	440	483	502	359
75°	184	212	271	317	333	197
85°	44	61	79	79	79	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1261.0	1261.0	1261.0	1261.0	1261.0
2.5°	1252.8	1256.0	1262.6	1264.3	1264.3
5°	1247.8	1251.1	1257.7	1259.3	1261.0
7.5°	1239.6	1241.3	1249.5	1252.8	1254.4
10°	1226.5	1229.8	1238.0	1242.9	1244.5
12.5°	1208.4	1213.4	1223.2	1229.8	1231.4
15°	1187.1	1193.7	1203.5	1213.4	1215.0
17.5°	1164.1	1170.7	1183.8	1195.3	1198.6
20°	1136.2	1144.4	1159.2	1172.3	1177.2
22.5°	1108.3	1114.8	1132.9	1149.3	1154.2
25°	1073.8	1083.6	1106.6	1121.4	1128.0
27.5°	1037.7	1049.2	1072.2	1091.9	1098.4
30°	999.9	1011.4	1036.0	1060.7	1068.9
32.5°	960.5	973.6	1003.2	1027.8	1036.0
35°	919.5	930.9	962.1	991.7	1001.5
37.5°	876.8	886.6	922.7	953.9	963.8
40°	830.8	843.9	881.7	917.8	927.7
42.5°	784.8	799.6	837.4	876.8	886.6
45°	738.8	755.3	794.7	835.7	847.2
47.5°	694.5	707.7	752.0	791.4	807.8
50°	646.9	660.0	702.7	747.1	763.5
52.5°	597.6	615.7	661.7	704.4	724.1
55°	550.0	568.1	615.7	658.4	676.5
57.5°	505.7	520.5	569.7	614.1	632.1
60°	458.1	471.2	523.8	571.4	587.8
62.5°	407.2	426.9	481.1	525.4	545.1
65°	361.2	382.6	440.0	482.7	502.4
67.5°	318.5	338.2	394.1	440.0	461.4
70°	269.3	295.5	353.0	399.0	418.7
72.5°	229.9	252.9	312.0	357.9	379.3
75°	183.9	211.8	270.9	316.9	333.3
77.5°	146.1	174.0	229.9	266.0	274.2
80°	106.7	134.6	187.2	205.2	210.2
82.5°	72.2	98.5	134.6	139.6	141.2
85°	44.3	60.7	78.8	78.8	78.8
87.5°	21.3	24.6	27.9	26.3	26.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)