

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: P309066

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-S-CA125-W2A-U-5700K**

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: P309066  
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-5700K  
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**

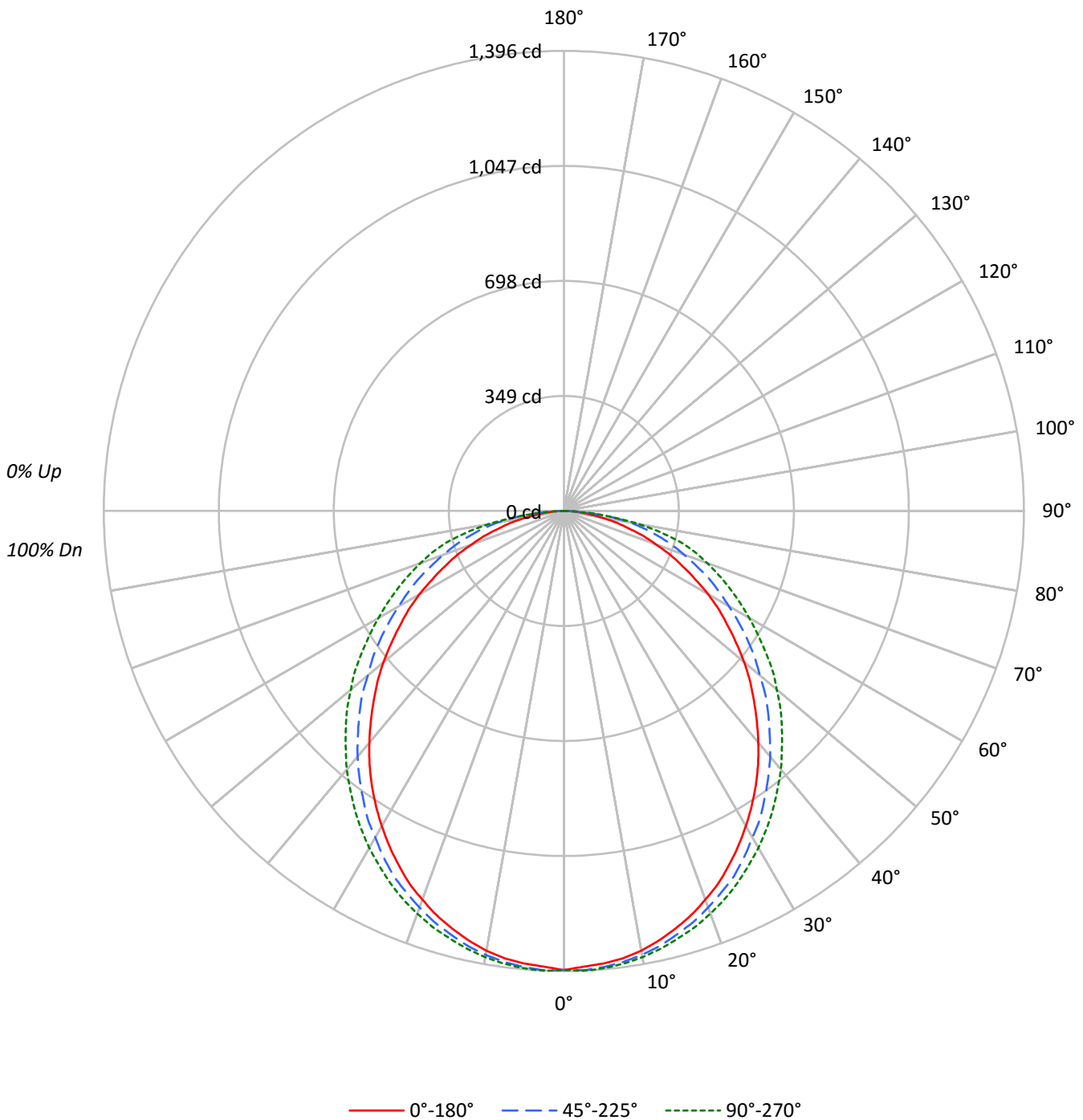
Lumens per Lamp: N/A  
Luminaire Lumens: 3887.0 lumens  
Efficiency: N/A  
Efficacy: 116.7 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 33.3  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3748	3748	3748
5°	3723	3753	3762
10°	3702	3736	3756
15°	3653	3704	3739
20°	3594	3667	3724
25°	3522	3630	3699
30°	3432	3556	3668
35°	3336	3491	3634
40°	3224	3421	3600
45°	3106	3341	3561
50°	2992	3249	3530
55°	2851	3191	3506
60°	2723	3113	3495
65°	2541	3095	3534
70°	2340	3068	3639
75°	2112	3111	3828
80°	1827	3203	3597
85°	1513	2689	2689



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	131.7	3.4
10°-20°	374.8	9.6
20°-30°	560.9	14.4
30°-40°	664.2	17.1
40°-50°	676.9	17.4
50°-60°	606.7	15.6
60°-70°	475.0	12.2
70°-80°	306.3	7.9
80°-90°	90.5	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°	1067.4	27.5
0°-40°	1731.6	44.5
0°-60°	3015.2	77.6
0°-90°	3887.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3887.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1393	1393	1393	1393	1393	
5°	1378	1382	1389	1391	1393	131
15°	1311	1318	1329	1340	1342	370
25°	1186	1197	1222	1239	1246	546
35°	1016	1028	1063	1095	1106	635
45°	816	834	878	923	936	630
55°	608	628	680	727	747	545
65°	399	423	486	533	555	396
75°	203	234	299	350	368	218
85°	49	67	87	87	87	57
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1392.8	1392.8	1392.8	1392.8	1392.8
2.5°	1383.8	1387.4	1394.6	1396.5	1396.5
5°	1378.3	1382.0	1389.2	1391.0	1392.8
7.5°	1369.3	1371.1	1380.1	1383.8	1385.6
10°	1354.7	1358.4	1367.4	1372.9	1374.7
12.5°	1334.8	1340.2	1351.1	1358.4	1360.2
15°	1311.2	1318.5	1329.4	1340.2	1342.1
17.5°	1285.8	1293.1	1307.6	1320.3	1323.9
20°	1255.0	1264.1	1280.4	1294.9	1300.3
22.5°	1224.2	1231.4	1251.4	1269.5	1275.0
25°	1186.1	1197.0	1222.4	1238.7	1245.9
27.5°	1146.2	1158.9	1184.3	1206.0	1213.3
30°	1104.5	1117.2	1144.4	1171.6	1180.6
32.5°	1060.9	1075.5	1108.1	1135.3	1144.4
35°	1015.6	1028.3	1062.8	1095.4	1106.3
37.5°	968.5	979.3	1019.2	1053.7	1064.6
40°	917.7	932.2	973.9	1013.8	1024.7
42.5°	866.9	883.2	924.9	968.5	979.3
45°	816.1	834.2	877.8	923.1	935.8
47.5°	767.1	781.7	830.6	874.1	892.3
50°	714.6	729.1	776.2	825.2	843.3
52.5°	660.1	680.1	730.9	778.0	799.8
55°	607.6	627.5	680.1	727.2	747.2
57.5°	558.6	574.9	629.3	678.3	698.2
60°	506.0	520.5	578.5	631.1	649.3
62.5°	449.8	471.5	531.4	580.3	602.1
65°	399.0	422.6	486.0	533.2	555.0
67.5°	351.8	373.6	435.3	486.0	509.6
70°	297.4	326.4	389.9	440.7	462.5
72.5°	253.9	279.3	344.6	395.4	418.9
75°	203.1	234.0	299.2	350.0	368.2
77.5°	161.4	192.2	253.9	293.8	302.9
80°	117.9	148.7	206.7	226.7	232.1
82.5°	79.8	108.8	148.7	154.2	156.0
85°	49.0	67.1	87.1	87.1	87.1
87.5°	23.6	27.2	30.8	29.0	29.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)