

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: P308792

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-CA125-W2A-U-4000K**

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: P308792  
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-CA125-W2A-U-4000K  
Description: 2'X2' TROFFER LED MODULE, RIBBED 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**

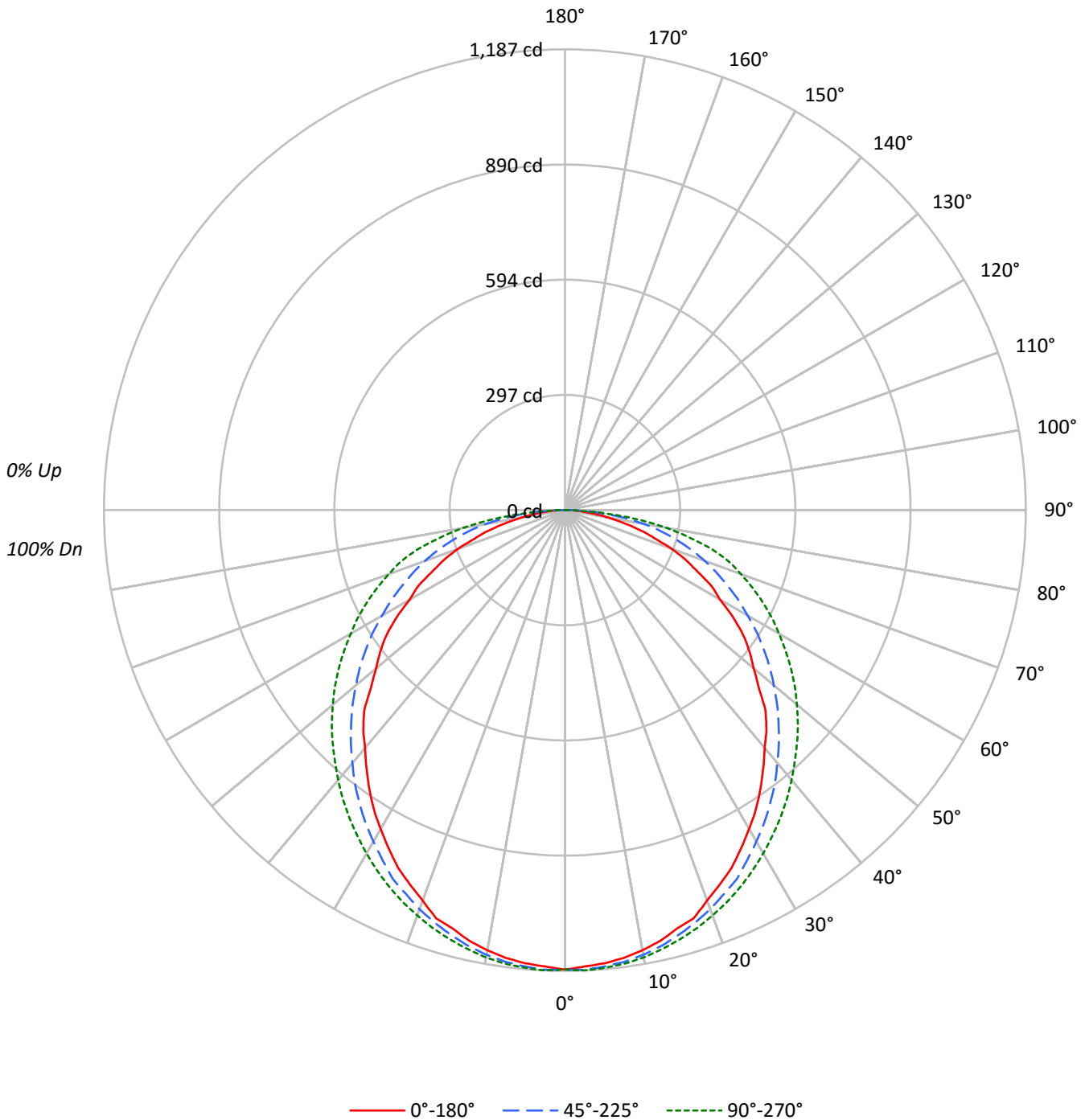
Lumens per Lamp: N/A  
Luminaire Lumens: 3528.0 lumens  
Efficiency: N/A  
Efficacy: 107.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 32.8  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3185	3185	3185
5°	3166	3188	3197
10°	3147	3179	3198
15°	3109	3156	3189
20°	3066	3133	3182
25°	3018	3113	3178
30°	2949	3064	3174
35°	2884	3029	3178
40°	2812	2989	3191
45°	2782	2962	3220
50°	2658	2941	3266
55°	2630	2931	3335
60°	2481	2926	3426
65°	2408	2946	3580
70°	2312	3016	3799
75°	2106	3108	4090
80°	1805	3219	4135
85°	1460	3075	3545



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.0	3.2
10°-20°	319.5	9.1
20°-30°	480.9	13.6
30°-40°	577.2	16.4
40°-50°	603.3	17.1
50°-60°	562.2	15.9
60°-70°	461.1	13.1
70°-80°	310.7	8.8
80°-90°	101.2	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°	912.4	25.9
0°-40°	1489.6	42.2
0°-60°	2655.0	75.3
0°-90°	3528.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3528.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1184	1184	1184	1184	1184	
5°	1172	1175	1180	1182	1184	111
15°	1116	1123	1133	1143	1145	315
25°	1016	1023	1049	1064	1070	467
35°	878	890	922	954	968	549
45°	731	736	778	826	846	559
55°	561	571	625	684	711	497
65°	378	395	463	530	562	376
75°	203	225	299	366	393	213
85°	47	68	100	116	115	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1183.7	1183.7	1183.7	<i>1183.7</i>	1183.7
2.5°	<i>1176.9</i>	<i>1180.3</i>	<i>1185.4</i>	<i>1187.1</i>	<i>1187.1</i>
5°	1171.9	1175.2	1180.3	<i>1182.0</i>	1183.7
7.5°	1163.4	1166.8	1173.5	<i>1176.9</i>	1178.6
10°	1151.6	1155.0	1163.4	<i>1168.5</i>	1170.2
12.5°	1136.4	1139.8	1149.9	<i>1156.7</i>	1158.3
15°	1116.1	1122.9	1133.0	<i>1143.1</i>	1144.8
17.5°	1102.6	1100.9	1114.4	<i>1126.3</i>	1129.6
20°	1070.5	1079.0	1094.2	<i>1107.7</i>	1111.1
22.5°	1043.5	1050.3	1070.5	<i>1085.7</i>	1092.5
25°	1016.5	1023.3	1048.6	<i>1063.8</i>	1070.5
27.5°	982.7	992.9	1016.5	<i>1038.5</i>	1046.9
30°	949.0	959.1	986.1	<i>1011.4</i>	1021.6
32.5°	915.2	927.0	955.7	<i>982.7</i>	994.6
35°	878.0	889.9	921.9	<i>954.0</i>	967.5
37.5°	839.2	854.4	888.2	<i>923.6</i>	938.8
40°	800.4	815.6	851.0	<i>891.6</i>	908.4
42.5°	768.3	775.0	815.6	<i>859.5</i>	876.4
45°	731.1	736.2	778.4	<i>825.7</i>	846.0
47.5°	677.1	695.7	741.3	<i>793.6</i>	813.9
50°	634.9	655.2	702.4	<i>758.2</i>	780.1
52.5°	599.4	612.9	665.3	<i>721.0</i>	746.3
55°	560.6	570.7	624.8	<i>683.9</i>	710.9
57.5°	513.3	531.9	585.9	<i>646.7</i>	673.7
60°	461.0	484.6	543.7	<i>609.6</i>	636.6
62.5°	427.2	440.7	504.9	<i>570.7</i>	601.1
65°	378.2	395.1	462.7	<i>530.2</i>	562.3
67.5°	337.7	354.6	423.8	<i>491.4</i>	523.5
70°	293.8	310.7	383.3	<i>450.8</i>	482.9
72.5°	243.2	266.8	342.8	<i>410.3</i>	444.1
75°	202.6	224.6	298.9	<i>366.4</i>	393.4
77.5°	157.0	185.7	255.0	<i>310.7</i>	331.0
80°	116.5	145.2	207.7	<i>248.2</i>	266.8
82.5°	79.4	108.1	155.3	<i>185.7</i>	195.9
85°	47.3	67.5	99.6	<i>116.5</i>	114.8
87.5°	22.0	28.7	40.5	<i>40.5</i>	38.8
90°	0.0	0.0	0.0	<i>0.0</i>	0.0

(END OF REPORT)