

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: P312846

Luminaire Tested: **22FCZ2-39HE-UNV-L83050-CA125-W2A-U-3500K**

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: P312846
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-L83050-CA125-W2A-U-3500K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 3500K 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: 3534.0 lumens
Efficiency: N/A
Efficacy: 109.1 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

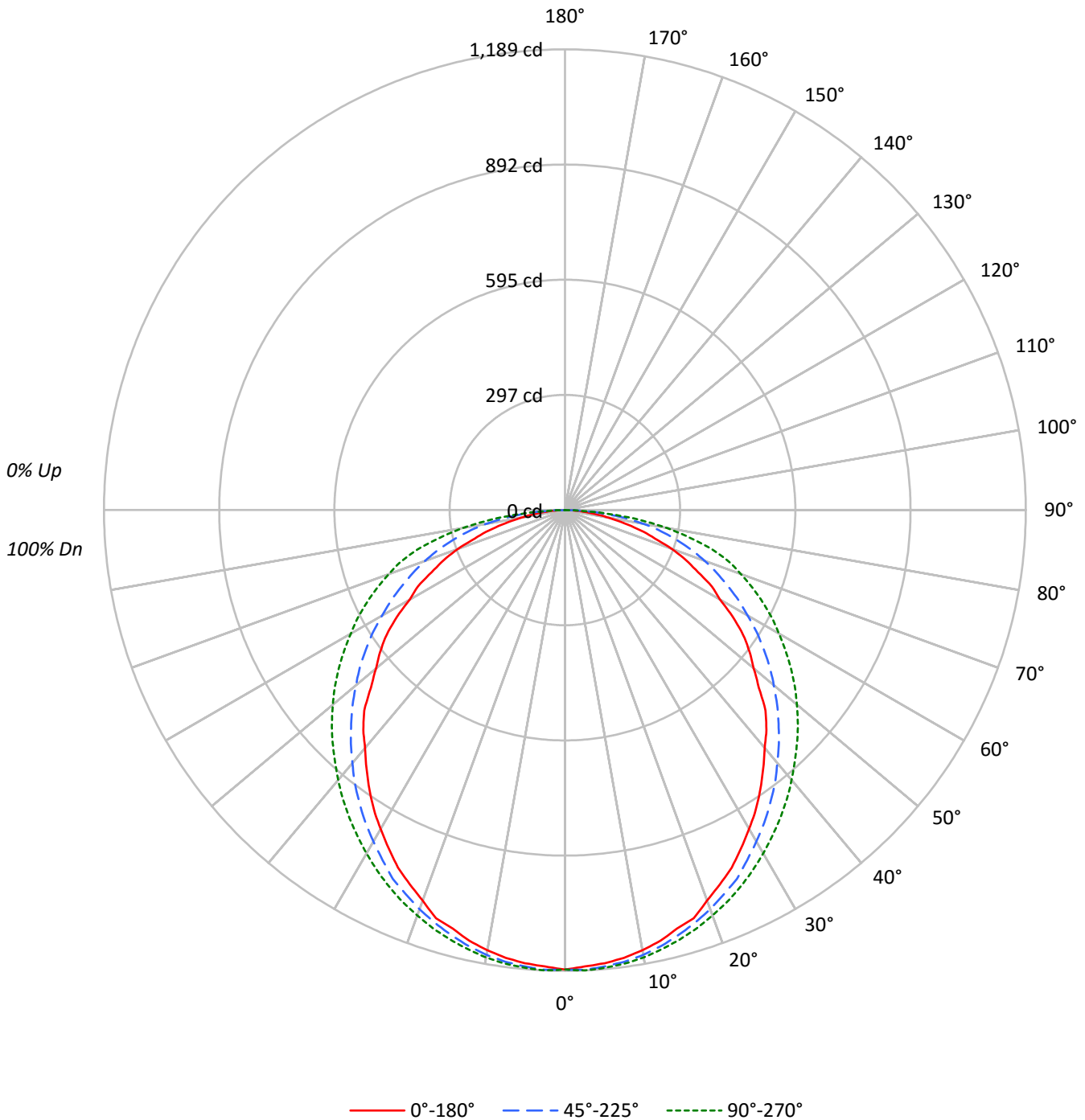
Input Watts (W): 32.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P312846

CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-CA125-W2A-U-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P312846

CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-CA125-W2A-U-3500K

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°	3191	3191	3191
5°	3171	3194	3203
10°	3152	3184	3203
15°	3115	3162	3195
20°	3071	3139	3187
25°	3023	3119	3184
30°	2954	3069	3180
35°	2889	3034	3184
40°	2816	2995	3197
45°	2787	2967	3225
50°	2663	2946	3271
55°	2635	2936	3341
60°	2485	2931	3432
65°	2413	2951	3586
70°	2316	3021	3806
75°	2111	3113	4098
80°	1808	3223	4141
85°	1463	3081	3551



TEST NUMBER: P312846

CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-CA125-W2A-U-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.2	3.2
10°-20°	320.1	9.1
20°-30°	481.7	13.6
30°-40°	578.1	16.4
40°-50°	604.3	17.1
50°-60°	563.1	15.9
60°-70°	461.9	13.1
70°-80°	311.2	8.8
80°-90°	101.4	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°	914.0	25.9
0°-40°	1492.1	42.2
0°-60°	2659.5	75.3
0°-90°	3534.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3534.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1186	1186	1186	1186	1186	
5°	1174	1177	1182	1184	1186	111
15°	1118	1125	1135	1145	1147	316
25°	1018	1025	1050	1066	1072	468
35°	880	891	924	956	969	550
45°	732	738	780	827	847	559
55°	562	572	626	685	712	498
65°	379	396	463	531	563	377
75°	203	225	299	367	394	213
85°	47	68	100	117	115	56
90°	0	0	0	0	0	



TEST NUMBER: P312846

CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-CA125-W2A-U-3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1185.7	1185.7	1185.7	<i>1185.7</i>	1185.7
2.5°	<i>1178.9</i>	<i>1182.3</i>	<i>1187.4</i>	<i>1189.1</i>	<i>1189.1</i>
5°	1173.8	1177.2	1182.3	<i>1184.0</i>	1185.7
7.5°	1165.4	1168.8	1175.5	<i>1178.9</i>	1180.6
10°	1153.5	1156.9	1165.4	<i>1170.5</i>	1172.2
12.5°	1138.3	1141.7	1151.9	<i>1158.6</i>	1160.3
15°	1118.0	1124.8	1134.9	<i>1145.1</i>	1146.8
17.5°	1104.5	1102.8	1116.3	<i>1128.2</i>	1131.6
20°	1072.4	1080.8	1096.0	<i>1109.6</i>	1113.0
22.5°	1045.3	1052.1	1072.4	<i>1087.6</i>	1094.4
25°	1018.2	1025.0	1050.4	<i>1065.6</i>	1072.4
27.5°	984.4	994.6	1018.2	<i>1040.2</i>	1048.7
30°	950.6	960.7	987.8	<i>1013.2</i>	1023.3
32.5°	916.8	928.6	957.3	<i>984.4</i>	996.2
35°	879.5	891.4	923.5	<i>955.7</i>	969.2
37.5°	840.6	855.9	889.7	<i>925.2</i>	940.4
40°	801.7	817.0	852.5	<i>893.1</i>	910.0
42.5°	769.6	776.4	817.0	<i>860.9</i>	877.8
45°	732.4	737.5	779.7	<i>827.1</i>	847.4
47.5°	678.3	696.9	742.5	<i>795.0</i>	815.3
50°	636.0	656.3	703.6	<i>759.4</i>	781.4
52.5°	600.5	614.0	666.4	<i>722.2</i>	747.6
55°	561.6	571.7	625.8	<i>685.0</i>	712.1
57.5°	514.2	532.8	586.9	<i>647.8</i>	674.9
60°	461.8	485.4	544.6	<i>610.6</i>	637.7
62.5°	427.9	441.5	505.7	<i>571.7</i>	602.1
65°	378.9	395.8	463.4	<i>531.1</i>	563.2
67.5°	338.3	355.2	424.5	<i>492.2</i>	524.3
70°	294.3	311.2	384.0	<i>451.6</i>	483.7
72.5°	243.6	267.2	343.4	<i>411.0</i>	444.8
75°	203.0	225.0	299.4	<i>367.0</i>	394.1
77.5°	157.3	186.1	255.4	<i>311.2</i>	331.5
80°	116.7	145.5	208.0	<i>248.6</i>	267.2
82.5°	79.5	108.3	155.6	<i>186.1</i>	196.2
85°	47.4	67.7	99.8	<i>116.7</i>	115.0
87.5°	22.0	28.8	40.6	<i>40.6</i>	38.9
90°	0.0	0.0	0.0	<i>0.0</i>	0.0

(END OF REPORT)