

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: P308343

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-RDP-CA125-W2A-U-4500K**

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: P308343
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-20HE-UNV-L82765-RDP-CA125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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: 1318.0 lumens
Efficiency: N/A
Efficacy: 77.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

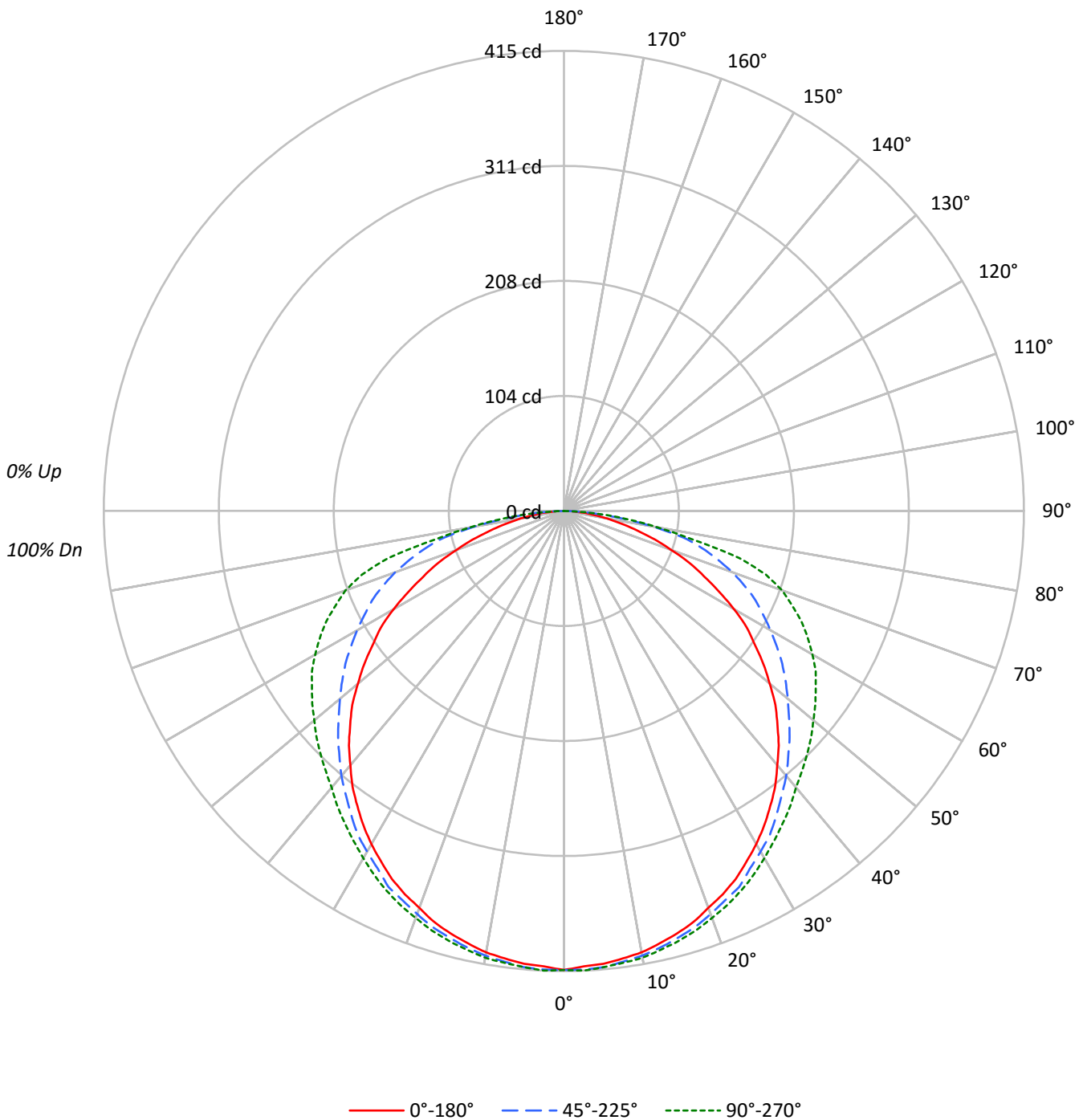
Input Watts (W): 17
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	92	89	92	89	86	88	86	84	82				
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67				
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55				
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47				
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40				
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35				
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31				
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27				
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24				
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1114	1114	1114
5°	1108	1116	1116
10°	1105	1113	1118
15°	1099	1110	1118
20°	1091	1108	1119
25°	1088	1111	1123
30°	1079	1103	1124
35°	1067	1099	1131
40°	1052	1097	1144
45°	1037	1096	1181
50°	1015	1104	1230
55°	987	1128	1301
60°	955	1158	1393
65°	889	1216	1507
70°	816	1274	1648
75°	715	1341	1704
80°	617	1277	1337
85°	540	929	1019



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.2	3.0
10°-20°	112.4	8.5
20°-30°	171.6	13.0
30°-40°	209.5	15.9
40°-50°	224.0	17.0
50°-60°	216.2	16.4
60°-70°	186.1	14.1
70°-80°	125.9	9.6
80°-90°	33.2	2.5
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°	323.2	24.5
0°-40°	532.6	40.4
0°-60°	972.8	73.8
0°-90°	1318.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1318.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	414	414	414	414	414	
5°	410	411	413	413	413	39
15°	395	396	398	400	401	111
25°	366	368	374	376	378	169
35°	325	328	334	341	344	203
45°	272	277	288	302	310	210
55°	210	217	240	265	277	189
65°	140	153	191	221	237	139
75°	69	91	129	155	164	74
85°	18	24	30	31	33	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	414.0	414.0	414.0	414.0	414.0
2.5°	411.1	412.1	414.0	414.0	415.0
5°	410.1	411.1	413.0	413.0	413.0
7.5°	407.2	408.2	410.1	411.1	411.1
10°	404.3	405.3	407.2	408.2	409.2
12.5°	399.5	400.4	403.3	405.3	405.3
15°	394.6	395.6	398.5	400.4	401.4
17.5°	388.8	390.7	393.6	395.6	396.6
20°	381.0	383.0	386.9	389.8	390.7
22.5°	374.3	376.2	380.1	383.0	384.9
25°	366.5	368.4	374.3	376.2	378.1
27.5°	356.8	358.7	363.6	367.5	370.4
30°	347.1	349.0	354.9	359.7	361.6
32.5°	336.4	339.3	346.1	350.0	352.9
35°	324.8	327.7	334.5	341.3	344.2
37.5°	313.2	316.1	322.9	331.6	335.5
40°	299.6	303.5	312.2	323.8	325.8
42.5°	287.0	291.8	299.6	313.2	318.0
45°	272.4	277.3	288.0	302.5	310.3
47.5°	258.9	263.7	275.4	292.8	302.5
50°	242.4	249.2	263.7	284.1	293.8
52.5°	226.9	232.7	252.1	274.4	286.0
55°	210.4	217.2	240.5	264.7	277.3
57.5°	195.9	201.7	227.8	255.0	269.5
60°	177.4	185.2	215.2	244.3	258.9
62.5°	158.0	169.7	202.6	232.7	248.2
65°	139.6	153.2	191.0	221.1	236.6
67.5°	123.1	137.7	176.5	208.5	223.0
70°	103.7	122.2	161.9	192.9	209.4
72.5°	86.3	106.7	145.4	176.5	191.0
75°	68.8	91.1	129.0	155.1	163.9
77.5°	53.3	74.7	110.5	118.3	119.3
80°	39.8	59.1	82.4	83.4	86.3
82.5°	27.1	41.7	53.3	58.2	59.1
85°	17.5	24.2	30.1	31.0	33.0
87.5°	7.8	8.7	10.7	9.7	9.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)