

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: P308334

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-RDP-CA08-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: P308334
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-CA08-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" 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: 1323.0 lumens
Efficiency: N/A
Efficacy: 77.8 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

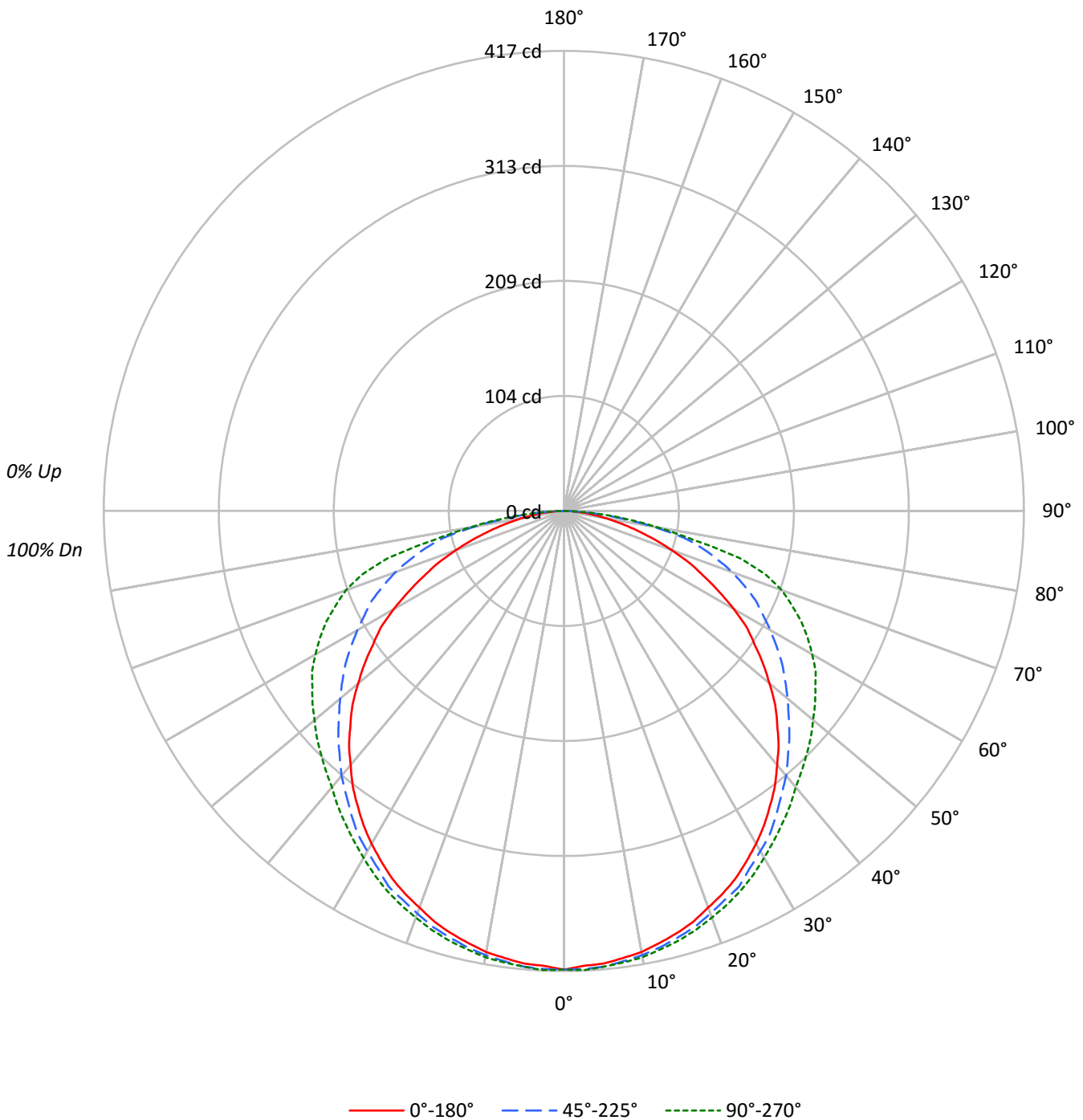
Input Watts (W): 17
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1118	1118	1118
5°	1112	1120	1120
10°	1109	1117	1122
15°	1103	1114	1122
20°	1095	1112	1123
25°	1092	1116	1127
30°	1083	1107	1128
35°	1071	1103	1135
40°	1056	1101	1149
45°	1041	1100	1185
50°	1019	1108	1235
55°	991	1133	1306
60°	959	1163	1399
65°	892	1221	1512
70°	819	1279	1654
75°	718	1345	1710
80°	618	1282	1342
85°	540	932	1022



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.3	3.0
10°-20°	112.9	8.5
20°-30°	172.2	13.0
30°-40°	210.3	15.9
40°-50°	224.8	17.0
50°-60°	217.0	16.4
60°-70°	186.8	14.1
70°-80°	126.4	9.6
80°-90°	33.3	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°	324.4	24.5
0°-40°	534.6	40.4
0°-60°	976.5	73.8
0°-90°	1323.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1323.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	416	416	416	416	416	
5°	412	413	415	415	415	39
15°	396	397	400	402	403	112
25°	368	370	376	378	380	169
35°	326	329	336	343	346	204
45°	274	278	289	304	311	211
55°	211	218	241	266	278	189
65°	140	154	192	222	238	139
75°	69	92	129	156	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°	415.6	415.6	415.6	415.6	415.6
2.5°	412.7	413.6	415.6	415.6	416.6
5°	411.7	412.7	414.6	414.6	414.6
7.5°	408.8	409.7	411.7	412.7	412.7
10°	405.8	406.8	408.8	409.7	410.7
12.5°	401.0	402.0	404.9	406.8	406.8
15°	396.1	397.1	400.0	402.0	402.9
17.5°	390.3	392.2	395.1	397.1	398.1
20°	382.5	384.4	388.3	391.2	392.2
22.5°	375.7	377.6	381.5	384.4	386.4
25°	367.9	369.8	375.7	377.6	379.6
27.5°	358.2	360.1	365.0	368.9	371.8
30°	348.4	350.4	356.2	361.1	363.0
32.5°	337.7	340.6	347.4	351.3	354.3
35°	326.0	329.0	335.8	342.6	345.5
37.5°	314.4	317.3	324.1	332.9	336.7
40°	300.7	304.6	313.4	325.1	327.0
42.5°	288.1	292.9	300.7	314.4	319.2
45°	273.5	278.3	289.1	303.7	311.4
47.5°	259.9	264.7	276.4	293.9	303.7
50°	243.3	250.1	264.7	285.2	294.9
52.5°	227.7	233.6	253.0	275.4	287.1
55°	211.2	218.0	241.4	265.7	278.3
57.5°	196.6	202.4	228.7	256.0	270.6
60°	178.1	185.9	216.1	245.3	259.9
62.5°	158.6	170.3	203.4	233.6	249.2
65°	140.1	153.8	191.7	221.9	237.5
67.5°	123.6	138.2	177.1	209.2	223.8
70°	104.1	122.6	162.5	193.7	210.2
72.5°	86.6	107.1	146.0	177.1	191.7
75°	69.1	91.5	129.4	155.7	164.5
77.5°	53.5	74.9	111.0	118.7	119.7
80°	39.9	59.4	82.7	83.7	86.6
82.5°	27.3	41.8	53.5	58.4	59.4
85°	17.5	24.3	30.2	31.1	33.1
87.5°	7.8	8.8	10.7	9.7	9.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)