

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: P308346

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-RDP-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: P308346
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-5700K
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: 1353.0 lumens
Efficiency: N/A
Efficacy: 78.7 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

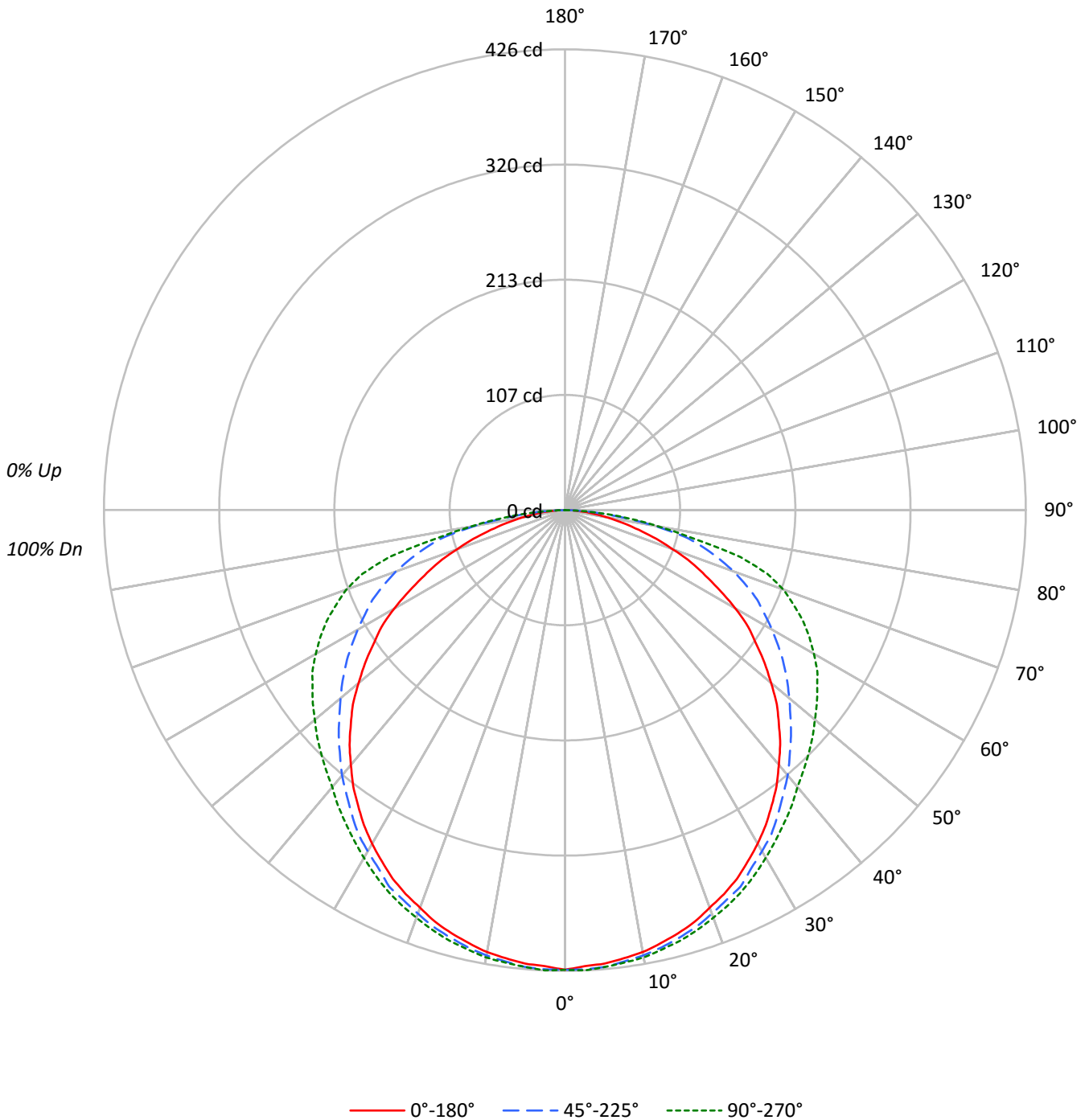
Input Watts (W): 17.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1144	1144	1144
5°	1137	1145	1145
10°	1134	1142	1148
15°	1129	1140	1148
20°	1120	1137	1149
25°	1117	1141	1153
30°	1107	1132	1154
35°	1095	1128	1161
40°	1081	1126	1175
45°	1064	1125	1212
50°	1042	1133	1263
55°	1013	1158	1336
60°	980	1189	1430
65°	912	1249	1547
70°	838	1308	1692
75°	735	1377	1749
80°	632	1311	1373
85°	553	954	1044



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.2	3.0
10°-20°	115.4	8.5
20°-30°	176.1	13.0
30°-40°	215.0	15.9
40°-50°	229.9	17.0
50°-60°	221.9	16.4
60°-70°	191.0	14.1
70°-80°	129.3	9.6
80°-90°	34.1	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°	331.7	24.5
0°-40°	546.8	40.4
0°-60°	998.6	73.8
0°-90°	1353.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1353.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	425	425	425	425	425	
5°	421	422	424	424	424	40
15°	405	406	409	411	412	114
25°	376	378	384	386	388	173
35°	333	336	343	350	353	209
45°	280	285	296	310	318	216
55°	216	223	247	272	285	194
65°	143	157	196	227	243	143
75°	71	94	132	159	168	76
85°	18	25	31	32	34	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	425.0	425.0	425.0	425.0	425.0
2.5°	422.0	423.0	425.0	425.0	426.0
5°	421.0	422.0	424.0	424.0	424.0
7.5°	418.0	419.0	421.0	422.0	422.0
10°	415.0	416.0	418.0	419.0	420.0
12.5°	410.1	411.1	414.1	416.0	416.0
15°	405.1	406.1	409.1	411.1	412.1
17.5°	399.1	401.1	404.1	406.1	407.1
20°	391.2	393.2	397.1	400.1	401.1
22.5°	384.2	386.2	390.2	393.2	395.1
25°	376.2	378.2	384.2	386.2	388.2
27.5°	366.3	368.3	373.2	377.2	380.2
30°	356.3	358.3	364.3	369.3	371.3
32.5°	345.4	348.4	355.3	359.3	362.3
35°	333.4	336.4	343.4	350.4	353.3
37.5°	321.5	324.5	331.4	340.4	344.4
40°	307.6	311.5	320.5	332.4	334.4
42.5°	294.6	299.6	307.6	321.5	326.5
45°	279.7	284.7	295.6	310.5	318.5
47.5°	265.7	270.7	282.7	300.6	310.5
50°	248.8	255.8	270.7	291.6	301.6
52.5°	232.9	238.9	258.8	281.7	293.6
55°	216.0	223.0	246.8	271.7	284.7
57.5°	201.1	207.0	233.9	261.8	276.7
60°	182.1	190.1	221.0	250.8	265.7
62.5°	162.2	174.2	208.0	238.9	254.8
65°	143.3	157.3	196.1	226.9	242.9
67.5°	126.4	141.3	181.1	214.0	228.9
70°	106.5	125.4	166.2	198.1	215.0
72.5°	88.6	109.5	149.3	181.1	196.1
75°	70.7	93.6	132.4	159.3	168.2
77.5°	54.7	76.6	113.5	121.4	122.4
80°	40.8	60.7	84.6	85.6	88.6
82.5°	27.9	42.8	54.7	59.7	60.7
85°	17.9	24.9	30.9	31.9	33.8
87.5°	8.0	9.0	10.9	10.0	10.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)