

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: P308342

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-RDP-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: P308342
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-4000K
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: 1295.0 lumens
Efficiency: N/A
Efficacy: 76.6 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

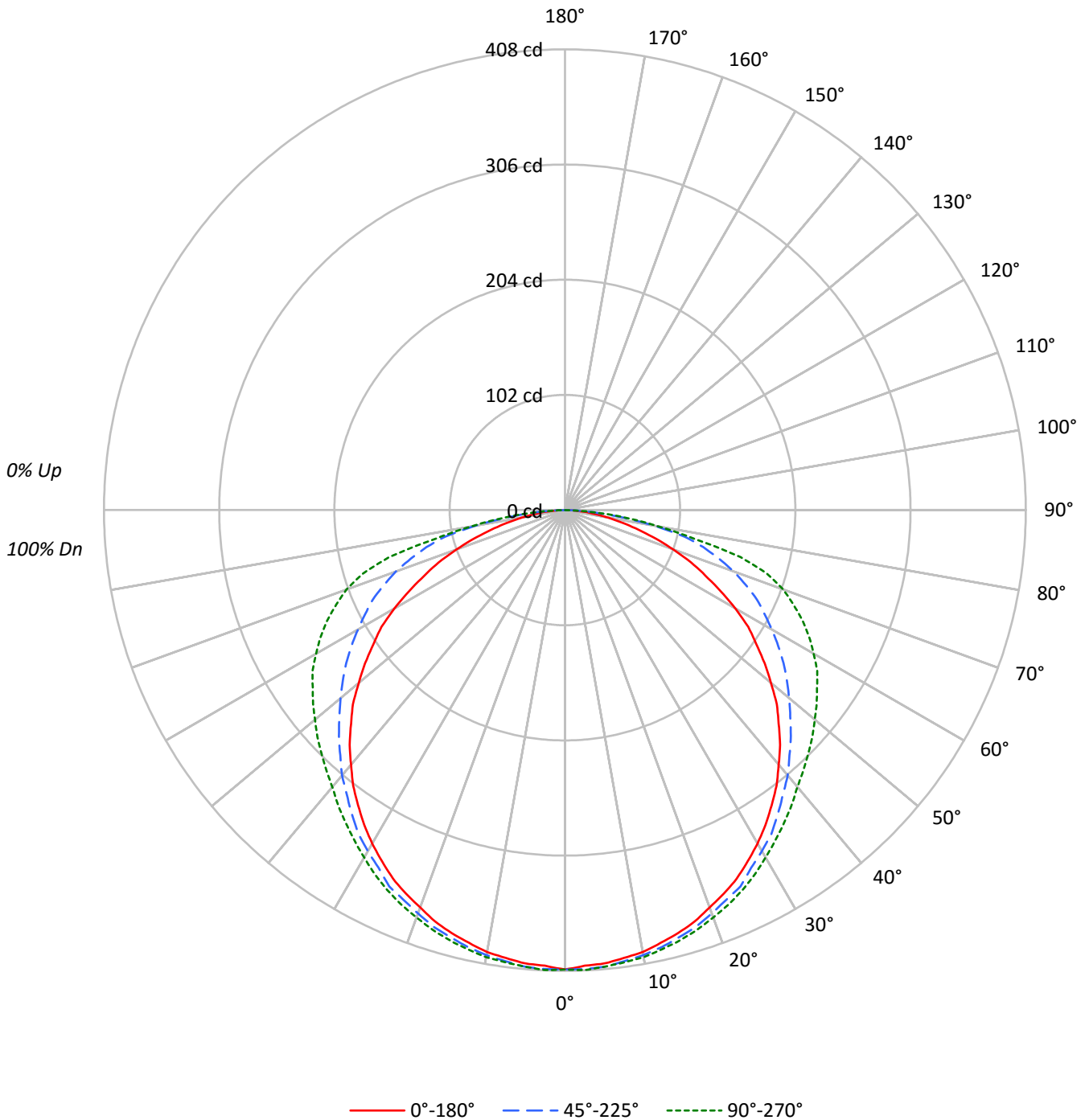
Input Watts (W): 16.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P308342

CATALOG NUMBER: 22FCZ2-20HE-UNV-L82765-RDP-CA125-W2A-U-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P308342

CATALOG NUMBER: 22FCZ2-20HE-UNV-L82765-RDP-CA125-W2A-U-4000K

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°	1095	1095	1095
5°	1089	1096	1096
10°	1086	1093	1098
15°	1080	1091	1099
20°	1072	1088	1099
25°	1069	1092	1103
30°	1060	1084	1104
35°	1048	1080	1111
40°	1034	1078	1124
45°	1019	1077	1160
50°	997	1085	1209
55°	970	1109	1278
60°	938	1138	1369
65°	874	1195	1480
70°	802	1252	1619
75°	703	1317	1674
80°	606	1255	1314
85°	528	911	1000



TEST NUMBER: P308342

CATALOG NUMBER: 22FCZ2-20HE-UNV-L82765-RDP-CA125-W2A-U-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.5	3.0
10°-20°	110.5	8.5
20°-30°	168.6	13.0
30°-40°	205.8	15.9
40°-50°	220.1	17.0
50°-60°	212.4	16.4
60°-70°	182.8	14.1
70°-80°	123.7	9.6
80°-90°	32.6	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°	317.5	24.5
0°-40°	523.3	40.4
0°-60°	955.8	73.8
0°-90°	1295.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1295.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	407	407	407	407	407	
5°	403	404	406	406	406	38
15°	388	389	392	393	394	109
25°	360	362	368	370	372	166
35°	319	322	329	335	338	200
45°	268	272	283	297	305	207
55°	207	213	236	260	272	185
65°	137	150	188	217	232	136
75°	68	90	127	152	161	73
85°	17	24	30	30	32	19
90°	0	0	0	0	0	



TEST NUMBER: P308342

CATALOG NUMBER: 22FC22-20HE-UNV-L82765-RDP-CA125-W2A-U-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	406.8	406.8	406.8	406.8	406.8
2.5°	403.9	404.9	406.8	406.8	407.7
5°	403.0	403.9	405.8	405.8	405.8
7.5°	400.1	401.1	403.0	403.9	403.9
10°	397.3	398.2	400.1	401.1	402.0
12.5°	392.5	393.4	396.3	398.2	398.2
15°	387.7	388.7	391.5	393.4	394.4
17.5°	382.0	383.9	386.8	388.7	389.6
20°	374.4	376.3	380.1	383.0	383.9
22.5°	367.7	369.6	373.4	376.3	378.2
25°	360.1	362.0	367.7	369.6	371.5
27.5°	350.6	352.5	357.2	361.1	363.9
30°	341.0	343.0	348.7	353.4	355.3
32.5°	330.6	333.4	340.1	343.9	346.8
35°	319.1	322.0	328.7	335.3	338.2
37.5°	307.7	310.6	317.2	325.8	329.6
40°	294.4	298.2	306.8	318.2	320.1
42.5°	282.0	286.7	294.4	307.7	312.5
45°	267.7	272.5	282.9	297.2	304.8
47.5°	254.4	259.1	270.6	287.7	297.2
50°	238.2	244.8	259.1	279.1	288.7
52.5°	222.9	228.6	247.7	269.6	281.0
55°	206.7	213.4	236.3	260.1	272.5
57.5°	192.4	198.2	223.9	250.5	264.8
60°	174.3	182.0	211.5	240.1	254.4
62.5°	155.3	166.7	199.1	228.6	243.9
65°	137.2	150.5	187.7	217.2	232.4
67.5°	121.0	135.3	173.4	204.8	219.1
70°	101.9	120.0	159.1	189.6	205.8
72.5°	84.8	104.8	142.9	173.4	187.7
75°	67.6	89.5	126.7	152.4	161.0
77.5°	52.4	73.4	108.6	116.2	117.2
80°	39.1	58.1	81.0	81.9	84.8
82.5°	26.7	41.0	52.4	57.2	58.1
85°	17.1	23.8	29.5	30.5	32.4
87.5°	7.6	8.6	10.5	9.5	9.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)