

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: P308073

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-HRP-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: P308073
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
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-HRP-CA125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 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: 1530.0 lumens
Efficiency: N/A
Efficacy: 90.0 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

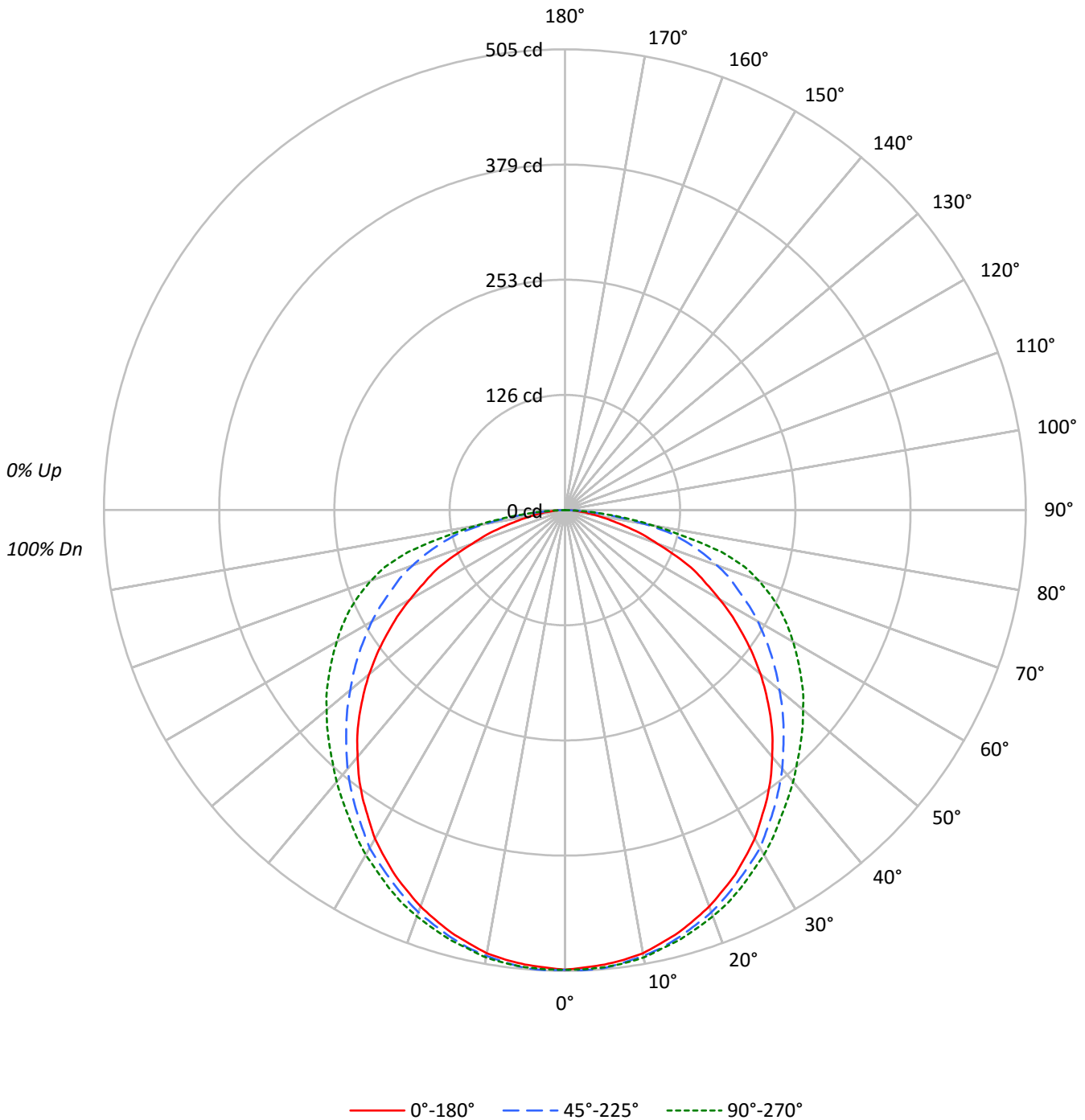
Input Watts (W): 17
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P308073

CATALOG NUMBER: 22FCZ2-20HE-UNV-L82765-HRP-CA125-W2A-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P308073

CATALOG NUMBER: 22FCZ2-20HE-UNV-L82765-HRP-CA125-W2A-U-4500K

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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	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	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
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	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1356	1356	1356
5°	1351	1361	1358
10°	1348	1356	1361
15°	1336	1350	1358
20°	1324	1343	1357
25°	1310	1333	1355
30°	1293	1329	1356
35°	1268	1313	1354
40°	1241	1302	1366
45°	1212	1289	1388
50°	1172	1285	1426
55°	1118	1295	1481
60°	1054	1314	1553
65°	996	1340	1659
70°	851	1397	1777
75°	712	1455	1847
80°	583	1406	1540
85°	506	1044	1133



TEST NUMBER: P308073

CATALOG NUMBER: 22FCZ2-20HE-UNV-L82765-HRP-CA125-W2A-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.8	3.1
10°-20°	136.6	8.9
20°-30°	207.0	13.5
30°-40°	250.0	16.3
40°-50°	262.6	17.2
50°-60°	247.1	16.2
60°-70°	206.0	13.5
70°-80°	136.5	8.9
80°-90°	36.4	2.4
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°	391.3	25.6
0°-40°	641.3	41.9
0°-60°	1151.0	75.2
0°-90°	1530.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1530.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	504	504	504	504	504	
5°	500	501	504	504	503	48
15°	480	482	484	486	487	135
25°	441	444	449	455	456	203
35°	386	390	400	408	412	241
45°	318	323	339	356	365	245
55°	238	249	276	304	316	213
65°	156	170	210	245	261	152
75°	68	96	140	169	178	74
85°	16	25	34	37	37	19
90°	0	0	0	0	0	



TEST NUMBER: P308073

CATALOG NUMBER: 22FC22-20HE-UNV-L82765-HRP-CA125-W2A-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	503.8	503.8	503.8	503.8	503.8
2.5°	501.9	502.8	504.8	504.8	503.8
5°	500.0	500.9	503.8	503.8	502.8
7.5°	497.1	498.0	500.0	501.9	500.9
10°	493.2	494.2	496.1	498.0	498.0
12.5°	486.4	487.4	491.3	492.2	492.2
15°	479.7	481.6	484.5	486.4	487.4
17.5°	471.0	472.9	476.8	480.6	480.6
20°	462.3	464.2	469.1	472.9	473.9
22.5°	451.7	454.6	459.4	464.2	466.2
25°	441.1	444.0	448.8	454.6	456.5
27.5°	428.5	431.4	438.2	444.9	445.9
30°	416.0	418.9	427.6	433.4	436.3
32.5°	400.5	404.4	413.1	421.8	424.7
35°	386.1	389.9	399.6	408.3	412.1
37.5°	370.6	374.5	385.1	395.7	400.5
40°	353.2	358.1	370.6	382.2	389.0
42.5°	336.8	341.7	354.2	369.7	376.4
45°	318.5	323.3	338.8	356.1	364.8
47.5°	299.2	305.0	323.3	344.6	353.2
50°	279.9	286.7	306.9	331.0	340.7
52.5°	259.6	268.3	291.5	317.5	329.1
55°	238.4	249.0	276.0	304.0	315.6
57.5°	218.1	227.8	259.6	289.5	302.1
60°	195.9	208.5	244.2	275.1	288.6
62.5°	174.7	188.2	227.8	260.6	275.1
65°	156.4	169.9	210.4	245.1	260.6
67.5°	132.2	150.6	195.9	228.7	244.2
70°	108.1	133.2	177.6	211.4	225.8
72.5°	89.8	113.9	159.3	193.0	206.5
75°	68.5	95.6	139.9	168.9	177.6
77.5°	51.2	79.1	119.7	134.2	135.1
80°	37.6	60.8	90.7	95.6	99.4
82.5°	26.1	42.5	58.9	64.7	66.6
85°	16.4	25.1	33.8	36.7	36.7
87.5°	8.7	9.7	11.6	11.6	11.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)