

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: P308887

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-S-CA125-W2A-U-6500K**

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: P308887
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
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-S-CA125-W2A-U-6500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH 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: 2137.0 lumens
Efficiency: N/A
Efficacy: 122.8 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

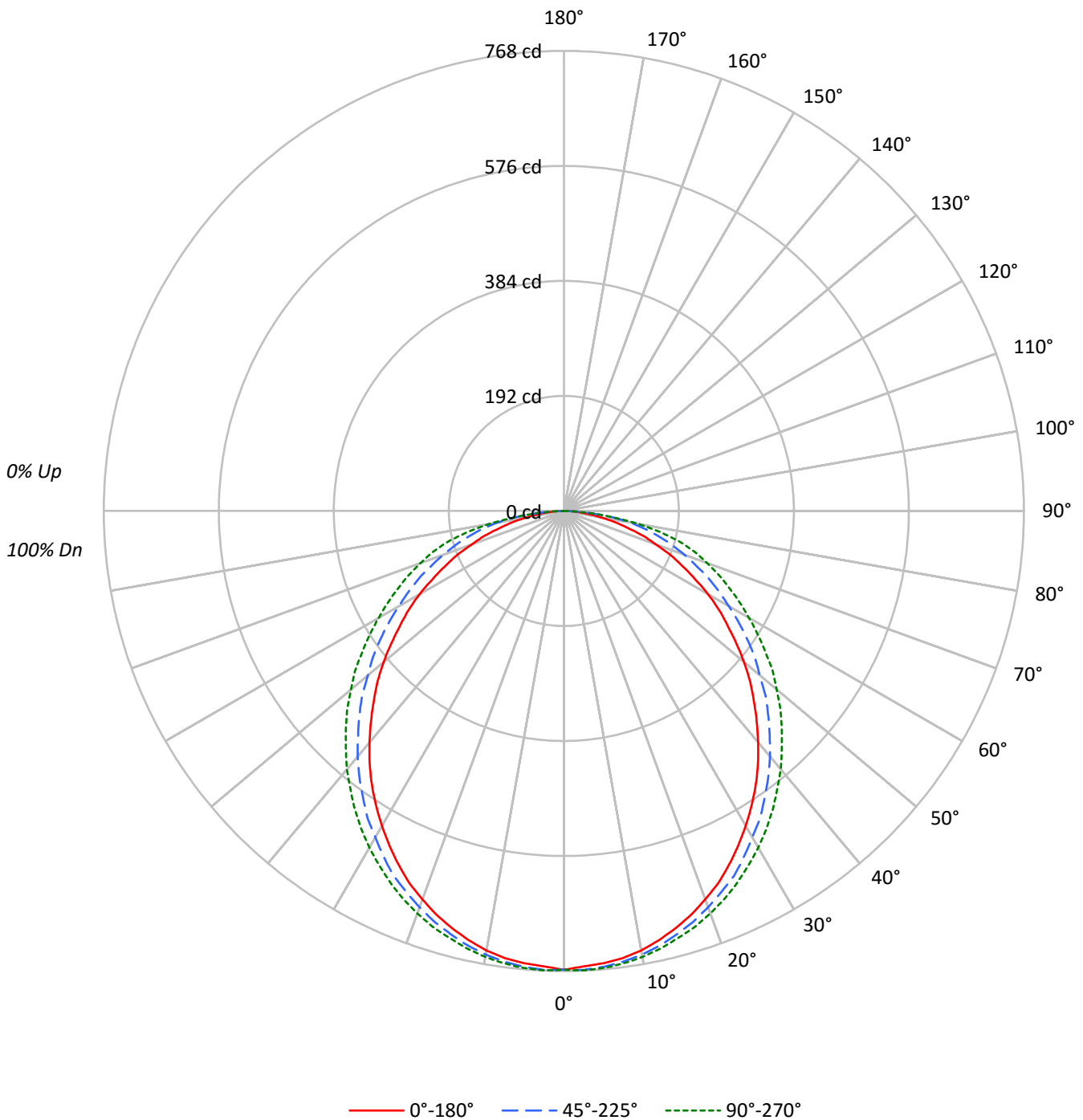
Input Watts (W): 17.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 22FC22-20HE-UNV-L82765-S-CA125-W2A-U-6500K

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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2061	2061	2061
5°	2047	2063	2069
10°	2035	2054	2065
15°	2008	2036	2055
20°	1976	2016	2047
25°	1936	1995	2034
30°	1887	1955	2017
35°	1834	1919	1998
40°	1772	1881	1979
45°	1708	1837	1958
50°	1644	1786	1941
55°	1567	1754	1927
60°	1497	1712	1921
65°	1397	1701	1943
70°	1286	1687	2001
75°	1161	1710	2104
80°	1004	1762	1977
85°	831	1479	1479



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.4	3.4
10°-20°	206.1	9.6
20°-30°	308.4	14.4
30°-40°	365.2	17.1
40°-50°	372.2	17.4
50°-60°	333.5	15.6
60°-70°	261.1	12.2
70°-80°	168.4	7.9
80°-90°	49.8	2.3
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°	586.9	27.5
0°-40°	952.0	44.5
0°-60°	1657.7	77.6
0°-90°	2137.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2137.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	766	766	766	766	766	
5°	758	760	764	765	766	72
15°	721	725	731	737	738	203
25°	652	658	672	681	685	300
35°	558	565	584	602	608	349
45°	449	459	483	508	514	347
55°	334	345	374	400	411	299
65°	219	232	267	293	305	218
75°	112	129	164	192	202	120
85°	27	37	48	48	48	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	765.8	765.8	765.8	765.8	765.8
2.5°	760.8	762.8	766.8	767.7	767.7
5°	757.8	759.8	763.8	764.8	765.8
7.5°	752.8	753.8	758.8	760.8	761.8
10°	744.8	746.8	751.8	754.8	755.8
12.5°	733.8	736.8	742.8	746.8	747.8
15°	720.9	724.9	730.9	736.8	737.8
17.5°	706.9	710.9	718.9	725.9	727.9
20°	690.0	695.0	703.9	711.9	714.9
22.5°	673.0	677.0	688.0	698.0	700.9
25°	652.1	658.1	672.0	681.0	685.0
27.5°	630.2	637.1	651.1	663.1	667.0
30°	607.2	614.2	629.2	644.1	649.1
32.5°	583.3	591.3	609.2	624.2	629.2
35°	558.4	565.3	584.3	602.2	608.2
37.5°	532.4	538.4	560.4	579.3	585.3
40°	504.5	512.5	535.4	557.4	563.3
42.5°	476.6	485.6	508.5	532.4	538.4
45°	448.7	458.7	482.6	507.5	514.5
47.5°	421.8	429.7	456.7	480.6	490.6
50°	392.8	400.8	426.7	453.7	463.6
52.5°	362.9	373.9	401.8	427.7	439.7
55°	334.0	345.0	373.9	399.8	410.8
57.5°	307.1	316.1	346.0	372.9	383.9
60°	278.2	286.2	318.1	347.0	357.0
62.5°	247.3	259.2	292.1	319.1	331.0
65°	219.4	232.3	267.2	293.1	305.1
67.5°	193.4	205.4	239.3	267.2	280.2
70°	163.5	179.5	214.4	242.3	254.3
72.5°	139.6	153.5	189.4	217.4	230.3
75°	111.7	128.6	164.5	192.4	202.4
77.5°	88.7	105.7	139.6	161.5	166.5
80°	64.8	81.8	113.7	124.6	127.6
82.5°	43.9	59.8	81.8	84.8	85.7
85°	26.9	36.9	47.9	47.9	47.9
87.5°	13.0	15.0	17.0	16.0	16.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)