

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: P308886

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-S-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: P308886
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-5700K
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: 2132.0 lumens
Efficiency: N/A
Efficacy: 124.0 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

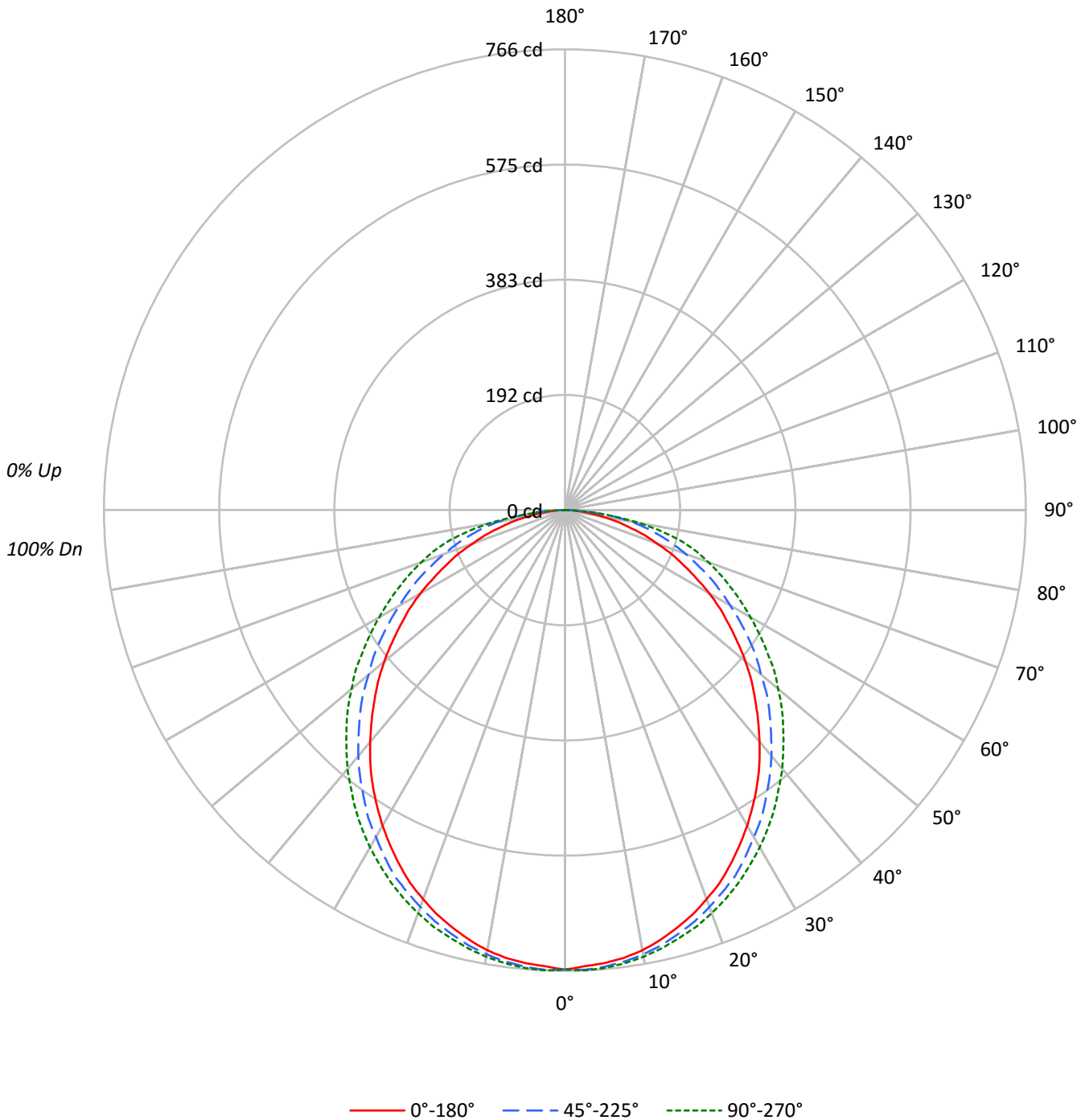
Input Watts (W): 17.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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°	2056	2056	2056
5°	2042	2058	2064
10°	2031	2049	2060
15°	2004	2031	2051
20°	1971	2011	2042
25°	1932	1991	2029
30°	1882	1950	2012
35°	1830	1915	1993
40°	1768	1877	1974
45°	1703	1832	1953
50°	1641	1782	1937
55°	1563	1750	1923
60°	1493	1708	1917
65°	1393	1698	1938
70°	1283	1683	1996
75°	1158	1706	2099
80°	1003	1757	1973
85°	831	1473	1473



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.2	3.4
10°-20°	205.6	9.6
20°-30°	307.6	14.4
30°-40°	364.3	17.1
40°-50°	371.3	17.4
50°-60°	332.8	15.6
60°-70°	260.5	12.2
70°-80°	168.0	7.9
80°-90°	49.6	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°	585.5	27.5
0°-40°	949.8	44.5
0°-60°	1653.8	77.6
0°-90°	2132.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2132.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	764	764	764	764	764	
5°	756	758	762	763	764	72
15°	719	723	729	735	736	203
25°	651	656	670	679	683	299
35°	557	564	583	601	607	348
45°	448	458	482	506	513	346
55°	333	344	373	399	410	299
65°	219	232	267	292	304	217
75°	111	128	164	192	202	119
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°	764.0	764.0	764.0	764.0	764.0
2.5°	759.0	761.0	765.0	766.0	766.0
5°	756.0	758.0	762.0	763.0	764.0
7.5°	751.0	752.0	757.0	759.0	760.0
10°	743.1	745.1	750.0	753.0	754.0
12.5°	732.1	735.1	741.1	745.1	746.1
15°	719.2	723.2	729.1	735.1	736.1
17.5°	705.3	709.3	717.2	724.2	726.2
20°	688.4	693.3	702.3	710.2	713.2
22.5°	671.5	675.4	686.4	696.3	699.3
25°	650.6	656.5	670.5	679.4	683.4
27.5°	628.7	635.6	649.6	661.5	665.5
30°	605.8	612.8	627.7	642.6	647.6
32.5°	581.9	589.9	607.8	622.7	627.7
35°	557.1	564.0	582.9	600.8	606.8
37.5°	531.2	537.2	559.0	577.9	583.9
40°	503.3	511.3	534.2	556.1	562.0
42.5°	475.5	484.4	507.3	531.2	537.2
45°	447.6	457.6	481.5	506.3	513.3
47.5°	420.8	428.7	455.6	479.5	489.4
50°	391.9	399.9	425.7	452.6	462.6
52.5°	362.1	373.0	400.9	426.7	438.7
55°	333.2	344.2	373.0	398.9	409.8
57.5°	306.4	315.3	345.2	372.0	383.0
60°	277.5	285.5	317.3	346.2	356.1
62.5°	246.7	258.6	291.5	318.3	330.3
65°	218.8	231.8	266.6	292.5	304.4
67.5°	193.0	204.9	238.7	266.6	279.5
70°	163.1	179.1	213.9	241.7	253.7
72.5°	139.3	153.2	189.0	216.9	229.8
75°	111.4	128.3	164.1	192.0	201.9
77.5°	88.5	105.4	139.3	161.1	166.1
80°	64.7	81.6	113.4	124.3	127.3
82.5°	43.8	59.7	81.6	84.6	85.5
85°	26.9	36.8	47.7	47.7	47.7
87.5°	12.9	14.9	16.9	15.9	15.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)