

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: P308625

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-CP125-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: P308625
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)
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-CP125-W2A-U-5700K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB 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: 1982.0 lumens
Efficiency: N/A
Efficacy: 115.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

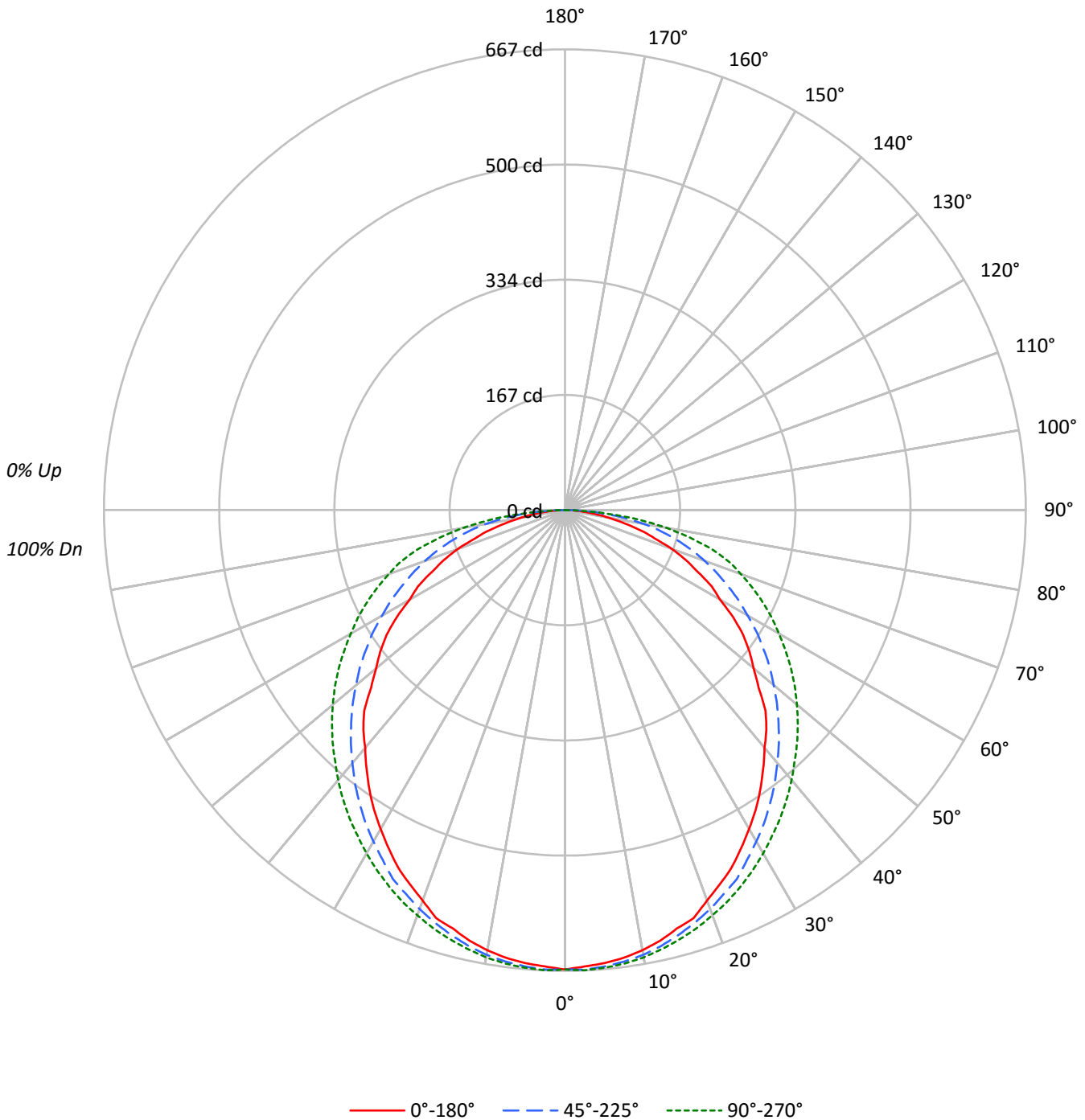
Input Watts (W): 17.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	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	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
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	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1790	1790	1790
5°	1778	1791	1796
10°	1768	1786	1796
15°	1747	1773	1792
20°	1722	1760	1788
25°	1696	1749	1786
30°	1656	1721	1783
35°	1621	1701	1786
40°	1579	1679	1793
45°	1563	1664	1809
50°	1493	1652	1835
55°	1477	1647	1874
60°	1394	1644	1925
65°	1353	1655	2011
70°	1299	1694	2135
75°	1183	1746	2298
80°	1015	1808	2323
85°	821	1729	1991



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.9	3.2
10°-20°	179.5	9.1
20°-30°	270.2	13.6
30°-40°	324.2	16.4
40°-50°	338.9	17.1
50°-60°	315.8	15.9
60°-70°	259.0	13.1
70°-80°	174.5	8.8
80°-90°	56.9	2.9
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°	512.6	25.9
0°-40°	836.8	42.2
0°-60°	1491.6	75.3
0°-90°	1982.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1982.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	665	665	665	665	665	
5°	658	660	663	664	665	62
15°	627	631	636	642	643	177
25°	571	575	589	598	601	263
35°	493	500	518	536	544	308
45°	411	414	437	464	475	314
55°	315	321	351	384	399	279
65°	212	222	260	298	316	211
75°	114	126	168	206	221	120
85°	27	38	56	66	64	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	665.0	665.0	665.0	665.0	665.0
2.5°	661.2	663.1	665.9	666.9	666.9
5°	658.3	660.2	663.1	664.0	665.0
7.5°	653.6	655.5	659.3	661.2	662.1
10°	647.0	648.9	653.6	656.4	657.4
12.5°	638.4	640.3	646.0	649.8	650.7
15°	627.0	630.8	636.5	642.2	643.2
17.5°	619.4	618.5	626.1	632.7	634.6
20°	601.4	606.2	614.7	622.3	624.2
22.5°	586.2	590.0	601.4	610.0	613.8
25°	571.1	574.9	589.1	597.6	601.4
27.5°	552.1	557.8	571.1	583.4	588.1
30°	533.1	538.8	554.0	568.2	573.9
32.5°	514.1	520.8	536.9	552.1	558.7
35°	493.3	499.9	517.9	536.0	543.6
37.5°	471.5	480.0	499.0	518.9	527.4
40°	449.6	458.2	478.1	500.9	510.4
42.5°	431.6	435.4	458.2	482.8	492.3
45°	410.7	413.6	437.3	463.9	475.3
47.5°	380.4	390.8	416.4	445.8	457.2
50°	356.7	368.1	394.6	425.9	438.3
52.5°	336.8	344.3	373.8	405.1	419.3
55°	314.9	320.6	351.0	384.2	399.4
57.5°	288.4	298.8	329.2	363.3	378.5
60°	259.0	272.3	305.5	342.4	357.6
62.5°	240.0	247.6	283.6	320.6	337.7
65°	212.5	222.0	259.9	297.9	315.9
67.5°	189.7	199.2	238.1	276.0	294.1
70°	165.1	174.5	215.3	253.3	271.3
72.5°	136.6	149.9	192.6	230.5	249.5
75°	113.8	126.2	167.9	205.8	221.0
77.5°	88.2	104.3	143.2	174.5	185.9
80°	65.5	81.6	116.7	139.4	149.9
82.5°	44.6	60.7	87.3	104.3	110.0
85°	26.6	37.9	56.0	65.5	64.5
87.5°	12.3	16.1	22.8	22.8	21.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)