

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: P308626

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-CP125-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: P308626
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-6500K
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: 1987.0 lumens
Efficiency: N/A
Efficacy: 114.2 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

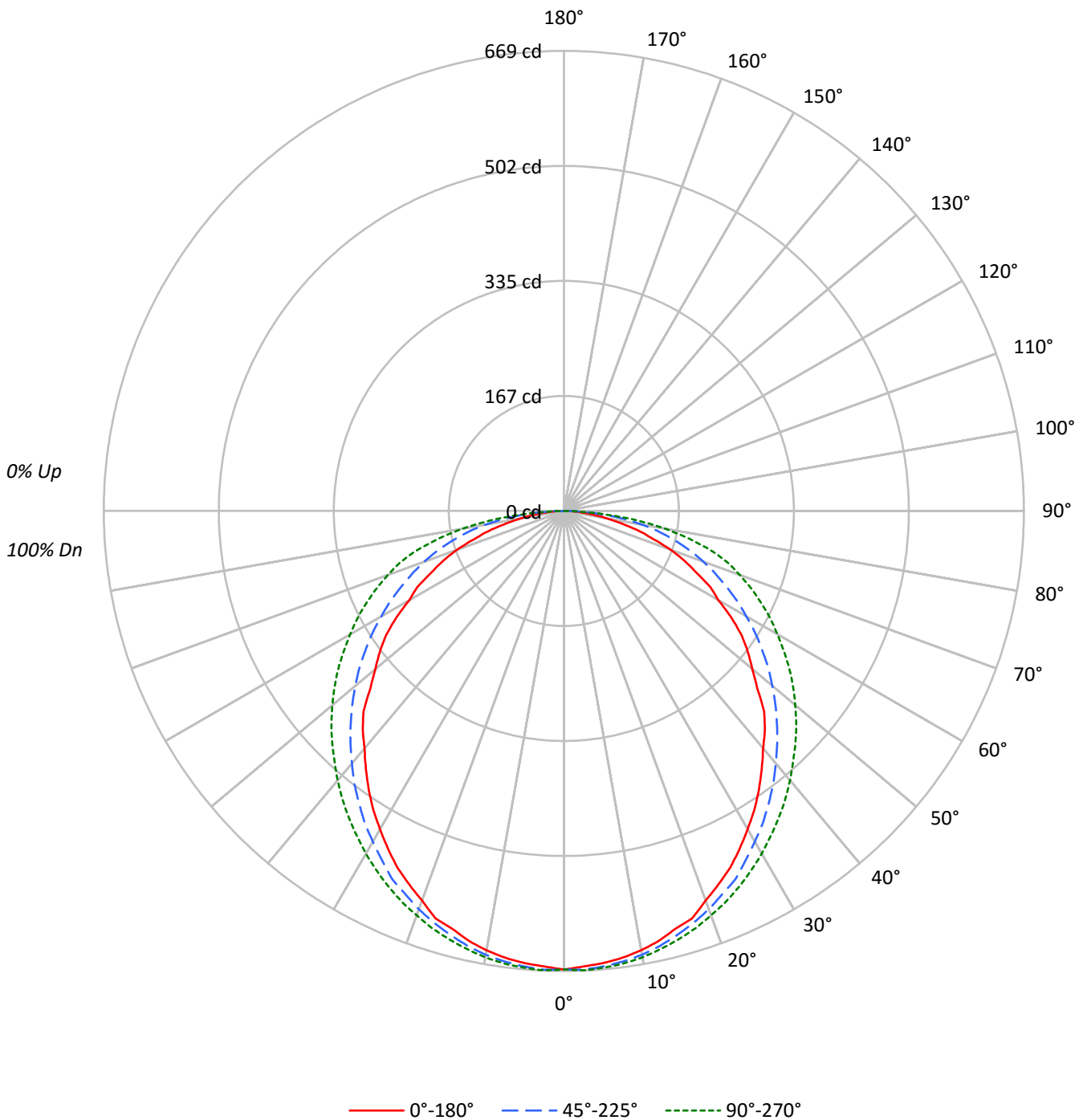
Input Watts (W): 17.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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°	1794	1794	1794
5°	1783	1796	1801
10°	1772	1790	1801
15°	1751	1778	1796
20°	1727	1765	1792
25°	1700	1754	1790
30°	1661	1726	1788
35°	1624	1706	1790
40°	1584	1684	1797
45°	1567	1668	1813
50°	1497	1656	1840
55°	1481	1651	1879
60°	1397	1648	1929
65°	1356	1659	2017
70°	1302	1699	2140
75°	1186	1750	2304
80°	1017	1813	2329
85°	821	1732	1998



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.1	3.2
10°-20°	180.0	9.1
20°-30°	270.8	13.6
30°-40°	325.1	16.4
40°-50°	339.8	17.1
50°-60°	316.6	15.9
60°-70°	259.7	13.1
70°-80°	175.0	8.8
80°-90°	57.0	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°	513.9	25.9
0°-40°	838.9	42.2
0°-60°	1495.3	75.3
0°-90°	1987.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1987.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	667	667	667	667	667	
5°	660	662	665	666	667	63
15°	629	632	638	644	645	178
25°	572	576	591	599	603	263
35°	494	501	519	537	545	309
45°	412	415	438	465	476	315
55°	316	321	352	385	400	280
65°	213	222	261	299	317	212
75°	114	126	168	206	222	120
85°	27	38	56	66	65	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	666.7	666.7	666.7	666.7	666.7
2.5°	662.9	664.8	667.6	668.6	668.6
5°	660.0	661.9	664.8	665.7	666.7
7.5°	655.2	657.1	660.9	662.9	663.8
10°	648.6	650.5	655.2	658.1	659.0
12.5°	640.0	641.9	647.6	651.4	652.4
15°	628.6	632.4	638.1	643.8	644.8
17.5°	621.0	620.1	627.7	634.3	636.2
20°	602.9	607.7	616.3	623.9	625.8
22.5°	587.7	591.5	602.9	611.5	615.3
25°	572.5	576.3	590.6	599.1	602.9
27.5°	553.5	559.2	572.5	584.9	589.6
30°	534.5	540.2	555.4	569.7	575.4
32.5°	515.4	522.1	538.3	553.5	560.1
35°	494.5	501.2	519.2	537.3	544.9
37.5°	472.7	481.2	500.2	520.2	528.8
40°	450.8	459.3	479.3	502.1	511.6
42.5°	432.7	436.5	459.3	484.1	493.6
45°	411.8	414.6	438.4	465.0	476.5
47.5°	381.4	391.8	417.5	447.0	458.4
50°	357.6	369.0	395.6	427.0	439.4
52.5°	337.6	345.2	374.7	406.1	420.3
55°	315.7	321.4	351.9	385.2	400.4
57.5°	289.1	299.6	330.0	364.2	379.5
60°	259.6	272.9	306.2	343.3	358.5
62.5°	240.6	248.2	284.4	321.4	338.6
65°	213.0	222.5	260.6	298.6	316.7
67.5°	190.2	199.7	238.7	276.7	294.8
70°	165.5	175.0	215.9	253.9	272.0
72.5°	136.9	150.3	193.1	231.1	250.1
75°	114.1	126.5	168.3	206.4	221.6
77.5°	88.4	104.6	143.6	175.0	186.4
80°	65.6	81.8	117.0	139.8	150.3
82.5°	44.7	60.9	87.5	104.6	110.3
85°	26.6	38.0	56.1	65.6	64.7
87.5°	12.4	16.2	22.8	22.8	21.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)