

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: P308643

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-CP250-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: P308643
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-CP250-W2A-U-5700K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.250" 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: 1883.0 lumens
Efficiency: N/A
Efficacy: 109.5 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

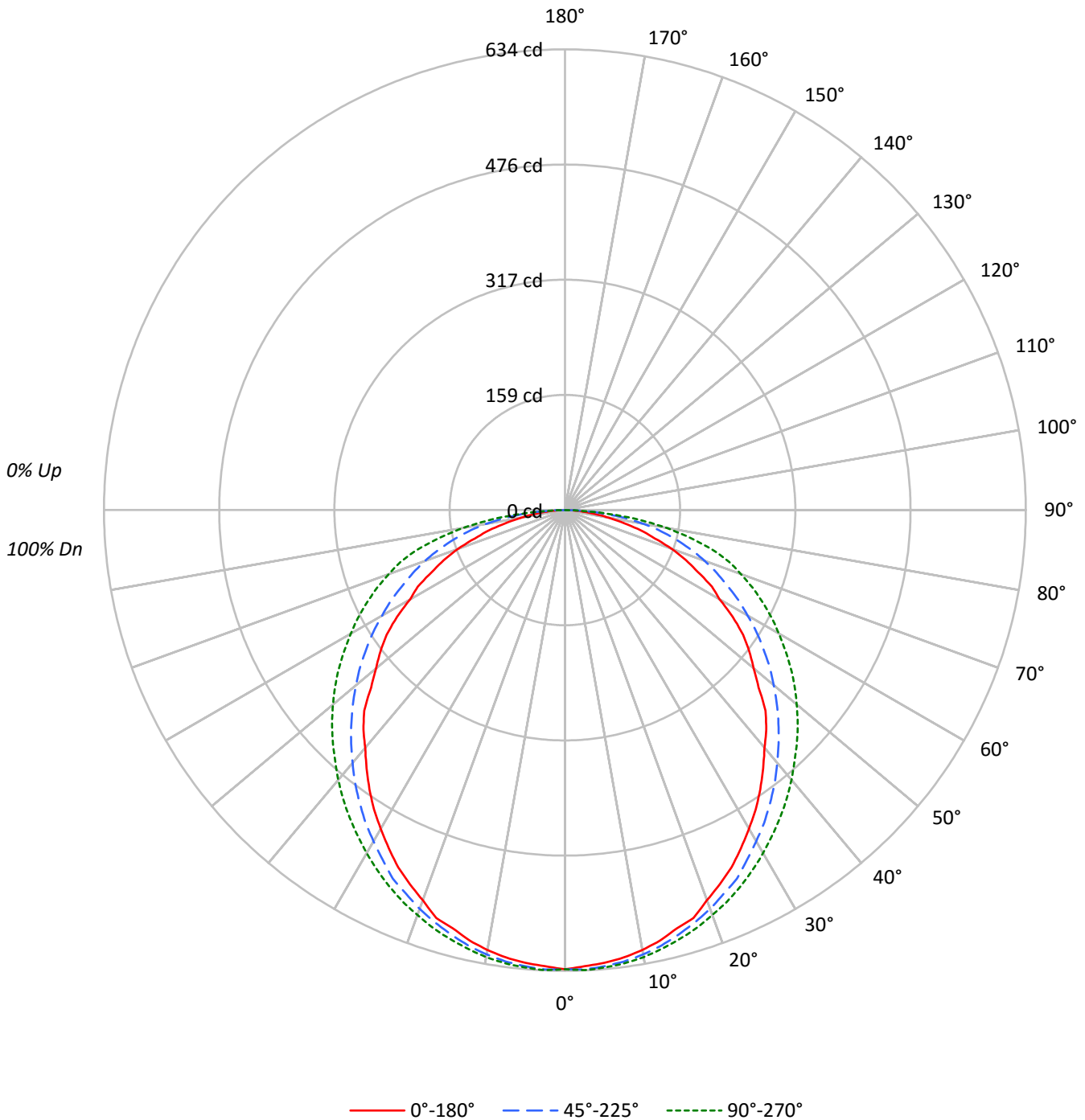
Input Watts (W): 17.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1700	1700	1700
5°	1690	1702	1707
10°	1679	1697	1707
15°	1660	1685	1702
20°	1636	1672	1698
25°	1611	1662	1697
30°	1574	1635	1694
35°	1539	1617	1696
40°	1501	1596	1703
45°	1485	1581	1718
50°	1419	1569	1743
55°	1404	1565	1780
60°	1324	1562	1829
65°	1286	1572	1911
70°	1234	1610	2028
75°	1124	1658	2183
80°	964	1719	2207
85°	778	1643	1893



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.8	3.2
10°-20°	170.5	9.1
20°-30°	256.7	13.6
30°-40°	308.0	16.4
40°-50°	322.0	17.1
50°-60°	300.1	15.9
60°-70°	246.1	13.1
70°-80°	165.8	8.8
80°-90°	54.0	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°	487.0	25.9
0°-40°	795.0	42.2
0°-60°	1417.1	75.3
0°-90°	1883.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1883.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	632	632	632	632	632	
5°	626	627	630	631	632	59
15°	596	599	605	610	611	168
25°	542	546	560	568	571	249
35°	469	475	492	509	516	293
45°	390	393	416	441	452	298
55°	299	305	334	365	379	265
65°	202	211	247	283	300	201
75°	108	120	160	196	210	114
85°	25	36	53	62	61	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	631.8	631.8	631.8	631.8	631.8
2.5°	628.2	630.0	632.7	633.6	633.6
5°	625.5	627.3	630.0	630.9	631.8
7.5°	620.9	622.8	626.4	628.2	629.1
10°	614.6	616.4	620.9	623.7	624.6
12.5°	606.5	608.3	613.7	617.3	618.2
15°	595.7	599.3	604.7	610.1	611.0
17.5°	588.5	587.6	594.8	601.1	602.9
20°	571.4	575.9	584.0	591.2	593.0
22.5°	557.0	560.6	571.4	579.5	583.1
25°	542.5	546.1	559.7	567.8	571.4
27.5°	524.5	529.9	542.5	554.3	558.8
30°	506.5	511.9	526.3	539.8	545.2
32.5°	488.5	494.8	510.1	524.5	530.8
35°	468.6	474.9	492.1	509.2	516.4
37.5°	447.9	456.0	474.0	493.0	501.1
40°	427.2	435.3	454.2	475.8	484.9
42.5°	410.1	413.7	435.3	458.7	467.7
45°	390.2	392.9	415.5	440.7	451.5
47.5°	361.4	371.3	395.6	423.6	434.4
50°	338.9	349.7	374.9	404.7	416.4
52.5°	319.9	327.1	355.1	384.8	398.3
55°	299.2	304.6	333.5	365.0	379.4
57.5°	274.0	283.9	312.7	345.2	359.6
60°	246.0	258.7	290.2	325.3	339.8
62.5°	228.0	235.2	269.5	304.6	320.8
65°	201.9	210.9	246.9	283.0	300.1
67.5°	180.2	189.3	226.2	262.3	279.4
70°	156.8	165.8	204.6	240.6	257.8
72.5°	129.8	142.4	182.9	219.0	237.0
75°	108.1	119.9	159.5	195.6	210.0
77.5°	83.8	99.1	136.1	165.8	176.6
80°	62.2	77.5	110.9	132.5	142.4
82.5°	42.4	57.7	82.9	99.1	104.5
85°	25.2	36.0	53.2	62.2	61.3
87.5°	11.7	15.3	21.6	21.6	20.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)