

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: P308077

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-HRP-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: P308077
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
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-HRP-CA125-W2A-U-6500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. 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: 1574.0 lumens
Efficiency: N/A
Efficacy: 90.5 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

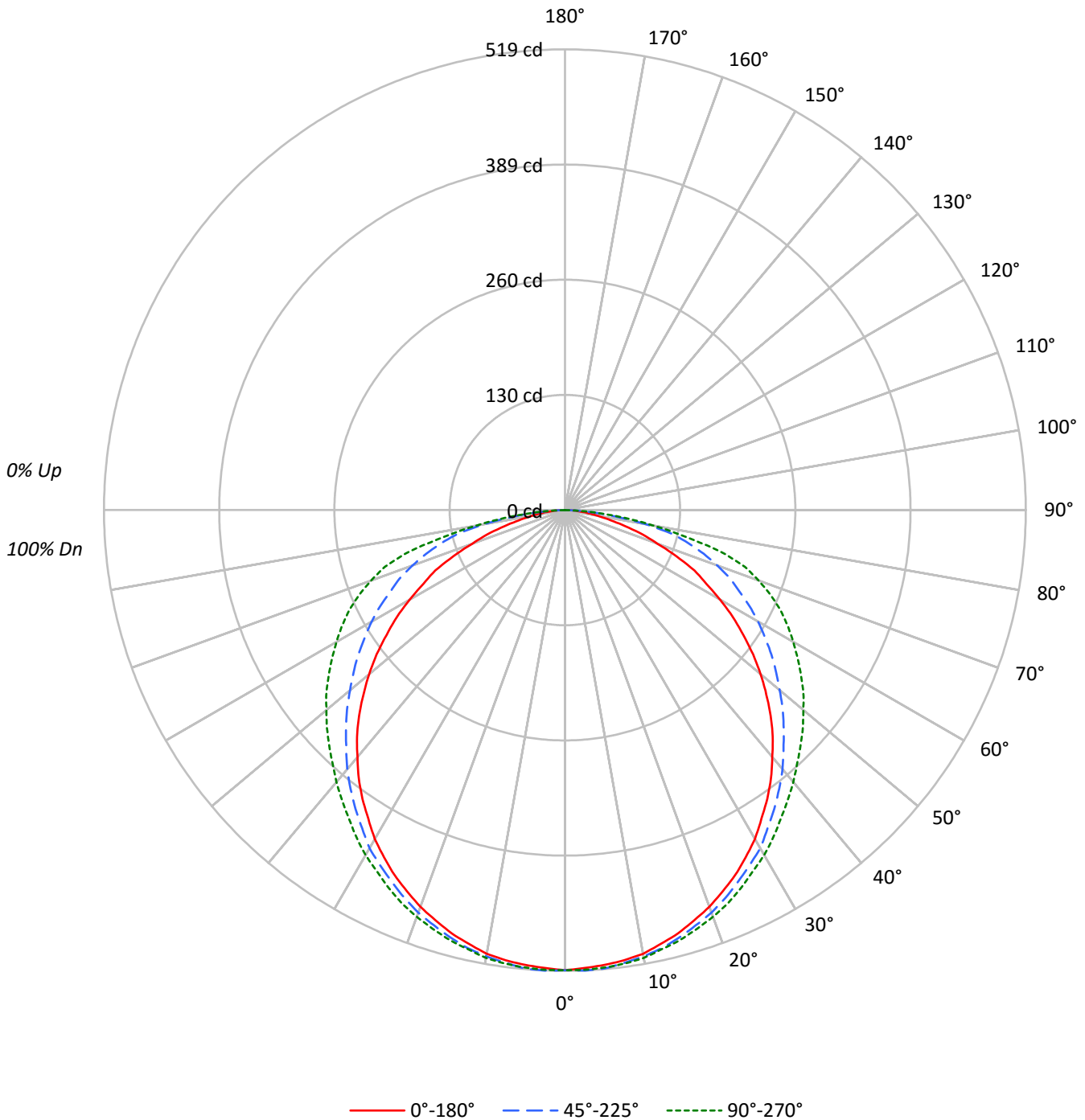
Input Watts (W): 17.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	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	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
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	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1395	1395	1395
5°	1389	1400	1397
10°	1386	1395	1400
15°	1375	1388	1397
20°	1362	1382	1396
25°	1347	1371	1394
30°	1330	1367	1395
35°	1305	1350	1393
40°	1277	1339	1405
45°	1247	1326	1428
50°	1205	1322	1467
55°	1150	1332	1523
60°	1085	1352	1598
65°	1025	1379	1707
70°	875	1437	1828
75°	733	1497	1900
80°	600	1446	1585
85°	522	1074	1164



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.1	3.1
10°-20°	140.5	8.9
20°-30°	213.0	13.5
30°-40°	257.1	16.3
40°-50°	270.2	17.2
50°-60°	254.2	16.2
60°-70°	212.0	13.5
70°-80°	140.4	8.9
80°-90°	37.4	2.4
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°	402.6	25.6
0°-40°	659.7	41.9
0°-60°	1184.2	75.2
0°-90°	1574.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1574.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	518	518	518	518	518	
5°	514	515	518	518	517	49
15°	494	496	498	500	501	139
25°	454	457	462	468	470	209
35°	397	401	411	420	424	248
45°	328	333	348	366	375	252
55°	245	256	284	313	325	219
65°	161	175	216	252	268	157
75°	70	98	144	174	183	76
85°	17	26	35	38	38	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	518.3	518.3	518.3	518.3	518.3
2.5°	516.3	517.3	519.3	519.3	518.3
5°	514.3	515.3	518.3	518.3	517.3
7.5°	511.4	512.3	514.3	516.3	515.3
10°	507.4	508.4	510.4	512.3	512.3
12.5°	500.4	501.4	505.4	506.4	506.4
15°	493.5	495.5	498.4	500.4	501.4
17.5°	484.5	486.5	490.5	494.5	494.5
20°	475.6	477.6	482.6	486.5	487.5
22.5°	464.7	467.7	472.6	477.6	479.6
25°	453.8	456.7	461.7	467.7	469.6
27.5°	440.9	443.8	450.8	457.7	458.7
30°	427.9	430.9	439.9	445.8	448.8
32.5°	412.1	416.0	425.0	433.9	436.9
35°	397.2	401.1	411.1	420.0	424.0
37.5°	381.3	385.3	396.2	407.1	412.1
40°	363.4	368.4	381.3	393.2	400.1
42.5°	346.5	351.5	364.4	380.3	387.2
45°	327.7	332.6	348.5	366.4	375.3
47.5°	307.8	313.8	332.6	354.5	363.4
50°	287.9	294.9	315.7	340.6	350.5
52.5°	267.1	276.0	299.9	326.7	338.6
55°	245.2	256.2	284.0	312.8	324.7
57.5°	224.4	234.3	267.1	297.9	310.8
60°	201.6	214.5	251.2	283.0	296.9
62.5°	179.7	193.6	234.3	268.1	283.0
65°	160.9	174.8	216.5	252.2	268.1
67.5°	136.0	154.9	201.6	235.3	251.2
70°	111.2	137.0	182.7	217.4	232.3
72.5°	92.3	117.2	163.8	198.6	212.5
75°	70.5	98.3	144.0	173.8	182.7
77.5°	52.6	81.4	123.1	138.0	139.0
80°	38.7	62.6	93.3	98.3	102.3
82.5°	26.8	43.7	60.6	66.5	68.5
85°	16.9	25.8	34.8	37.7	37.7
87.5°	8.9	9.9	11.9	11.9	11.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)