

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: P308074

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-HRP-CA125-W2A-U-5000K**

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: P308074
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-5000K
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: 1551.0 lumens
Efficiency: N/A
Efficacy: 90.7 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

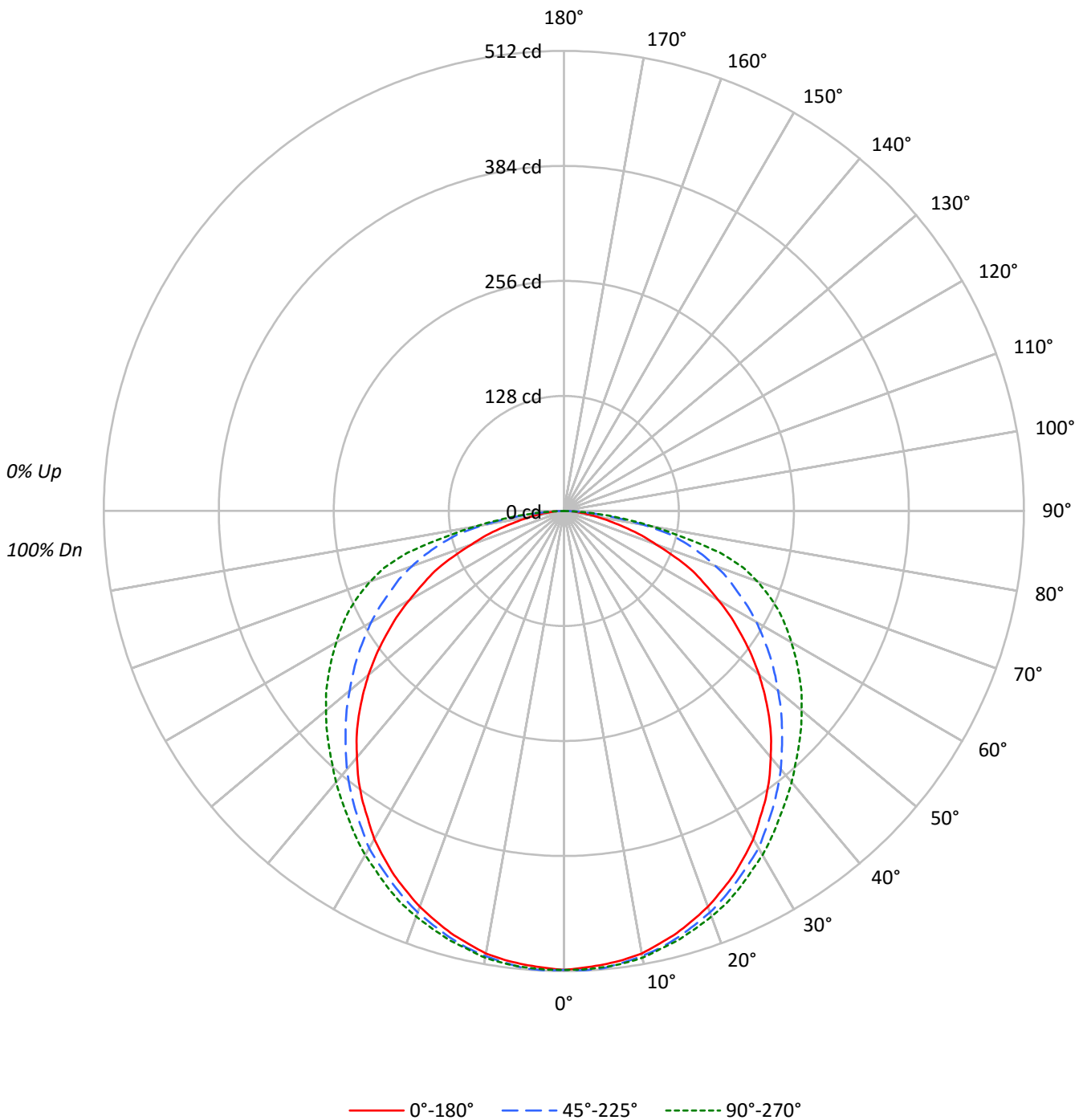
Input Watts (W): 17.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82				82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68				68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56				56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48				48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41				41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36				36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31				31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28				28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25				25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23				23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1374	1374	1374
5°	1369	1380	1377
10°	1366	1374	1380
15°	1355	1368	1377
20°	1342	1362	1376
25°	1328	1351	1374
30°	1310	1347	1374
35°	1286	1331	1373
40°	1258	1320	1385
45°	1229	1307	1407
50°	1188	1302	1446
55°	1134	1313	1501
60°	1069	1332	1574
65°	1009	1358	1682
70°	862	1416	1801
75°	723	1475	1871
80°	592	1426	1562
85°	513	1056	1149



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.4	3.1
10°-20°	138.5	8.9
20°-30°	209.8	13.5
30°-40°	253.4	16.3
40°-50°	266.3	17.2
50°-60°	250.5	16.2
60°-70°	208.9	13.5
70°-80°	138.4	8.9
80°-90°	36.9	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°	396.7	25.6
0°-40°	650.1	41.9
0°-60°	1166.8	75.2
0°-90°	1551.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1551.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	511	511	511	511	511	
5°	507	508	511	511	510	48
15°	486	488	491	493	494	137
25°	447	450	455	461	463	206
35°	391	395	405	414	418	245
45°	323	328	343	361	370	249
55°	242	252	280	308	320	216
65°	158	172	213	248	264	154
75°	70	97	142	171	180	75
85°	17	25	34	37	37	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	510.7	510.7	510.7	510.7	510.7
2.5°	508.8	509.7	511.7	511.7	510.7
5°	506.8	507.8	510.7	510.7	509.7
7.5°	503.9	504.9	506.8	508.8	507.8
10°	500.0	500.9	502.9	504.9	504.9
12.5°	493.1	494.1	498.0	499.0	499.0
15°	486.3	488.2	491.2	493.1	494.1
17.5°	477.5	479.4	483.3	487.2	487.2
20°	468.7	470.6	475.5	479.4	480.4
22.5°	457.9	460.8	465.7	470.6	472.6
25°	447.1	450.1	455.0	460.8	462.8
27.5°	434.4	437.3	444.2	451.0	452.0
30°	421.7	424.6	433.4	439.3	442.2
32.5°	406.0	410.0	418.8	427.6	430.5
35°	391.4	395.3	405.1	413.9	417.8
37.5°	375.7	379.6	390.4	401.1	406.0
40°	358.1	363.0	375.7	387.4	394.3
42.5°	341.5	346.4	359.1	374.7	381.6
45°	322.9	327.8	343.4	361.0	369.8
47.5°	303.3	309.2	327.8	349.3	358.1
50°	283.7	290.6	311.1	335.6	345.4
52.5°	263.2	272.0	295.5	321.9	333.6
55°	241.7	252.4	279.8	308.2	319.9
57.5°	221.1	230.9	263.2	293.5	306.2
60°	198.6	211.3	247.5	278.8	292.5
62.5°	177.1	190.8	230.9	264.2	278.8
65°	158.5	172.2	213.3	248.5	264.2
67.5°	134.0	152.6	198.6	231.9	247.5
70°	109.6	135.0	180.0	214.3	228.9
72.5°	91.0	115.5	161.4	195.7	209.4
75°	69.5	96.9	141.9	171.2	180.0
77.5°	51.9	80.2	121.3	136.0	137.0
80°	38.2	61.6	92.0	96.9	100.8
82.5°	26.4	43.0	59.7	65.6	67.5
85°	16.6	25.4	34.2	37.2	37.2
87.5°	8.8	9.8	11.7	11.7	11.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)