

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: P308421

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-RDP-CA08-W2A-U-3000K**

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: P308421
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-29HE-UNV-L82765-RDP-CA08-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" 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: 1622.0 lumens
Efficiency: N/A
Efficacy: 73.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

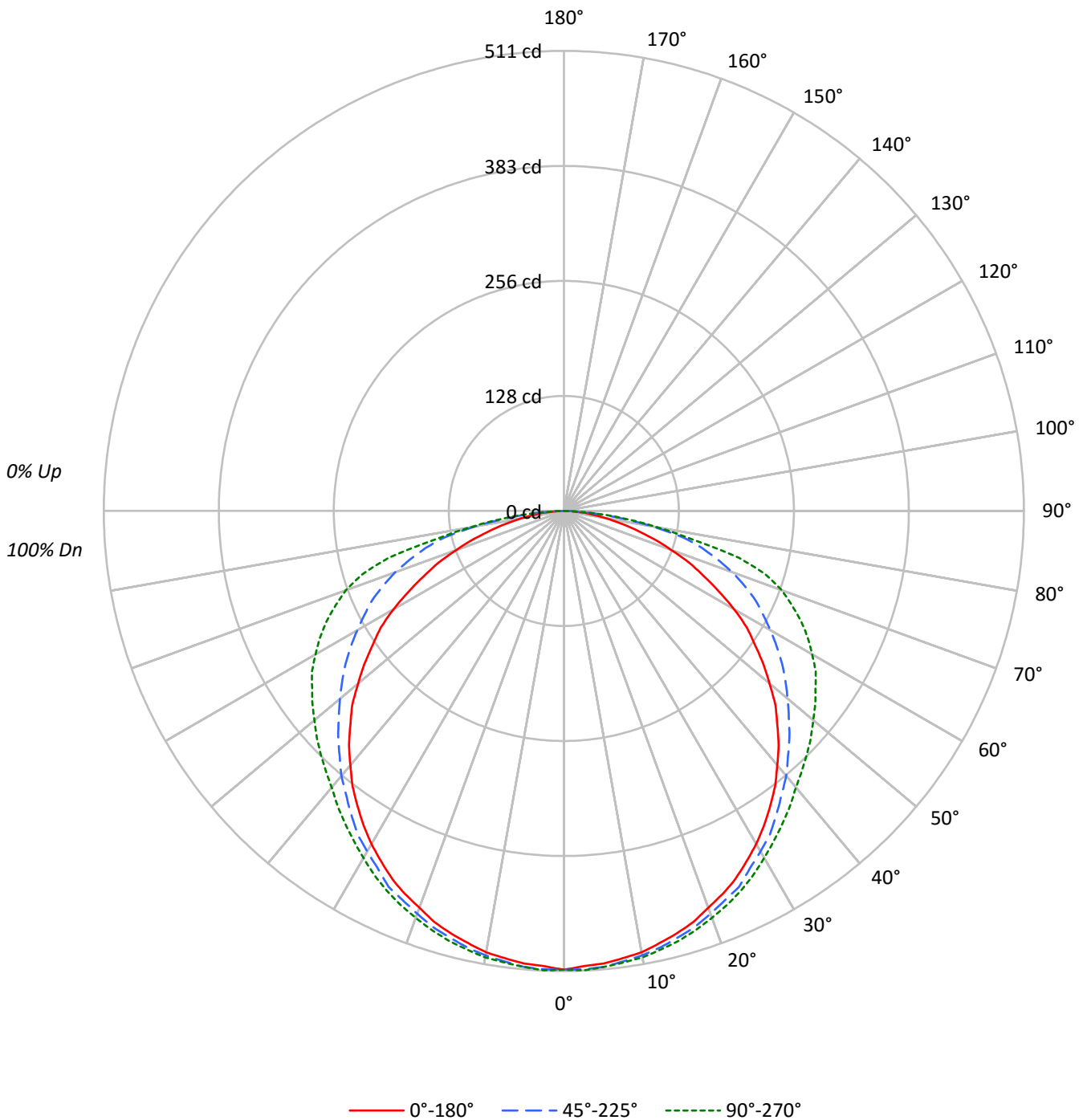
Input Watts (W): 22.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1371	1371	1371
5°	1363	1373	1373
10°	1360	1369	1376
15°	1353	1366	1376
20°	1343	1363	1377
25°	1339	1368	1382
30°	1327	1357	1383
35°	1313	1352	1392
40°	1295	1350	1408
45°	1276	1349	1453
50°	1249	1359	1513
55°	1215	1388	1601
60°	1175	1426	1715
65°	1094	1497	1854
70°	1005	1568	2028
75°	881	1650	2097
80°	758	1571	1646
85°	664	1142	1254



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.2	3.0
10°-20°	138.4	8.5
20°-30°	211.1	13.0
30°-40°	257.8	15.9
40°-50°	275.6	17.0
50°-60°	266.0	16.4
60°-70°	229.0	14.1
70°-80°	155.0	9.6
80°-90°	40.9	2.5
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°	397.7	24.5
0°-40°	655.5	40.4
0°-60°	1197.2	73.8
0°-90°	1622.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1622.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	510	510	510	510	510	
5°	505	506	508	508	508	48
15°	486	487	490	493	494	137
25°	451	453	461	463	465	208
35°	400	403	412	420	424	250
45°	335	341	354	372	382	259
55°	259	267	296	326	341	232
65°	172	188	235	272	291	171
75°	85	112	159	191	202	91
85°	22	30	37	38	41	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	509.5	509.5	509.5	509.5	509.5
2.5°	505.9	507.1	509.5	509.5	510.7
5°	504.7	505.9	508.3	508.3	508.3
7.5°	501.1	502.3	504.7	505.9	505.9
10°	497.6	498.8	501.1	502.3	503.5
12.5°	491.6	492.8	496.4	498.8	498.8
15°	485.6	486.8	490.4	492.8	494.0
17.5°	478.5	480.9	484.4	486.8	488.0
20°	468.9	471.3	476.1	479.7	480.9
22.5°	460.6	463.0	467.7	471.3	473.7
25°	451.0	453.4	460.6	463.0	465.3
27.5°	439.1	441.5	447.5	452.2	455.8
30°	427.2	429.6	436.7	442.7	445.1
32.5°	414.0	417.6	426.0	430.7	434.3
35°	399.7	403.3	411.7	420.0	423.6
37.5°	385.4	389.0	397.3	408.1	412.8
40°	368.7	373.5	384.2	398.5	400.9
42.5°	353.2	359.2	368.7	385.4	391.4
45°	335.3	341.3	354.4	372.3	381.8
47.5°	318.6	324.6	338.9	360.3	372.3
50°	298.3	306.7	324.6	349.6	361.5
52.5°	279.2	286.4	310.2	337.7	352.0
55°	258.9	267.3	295.9	325.7	341.3
57.5°	241.0	248.2	280.4	313.8	331.7
60°	218.4	227.9	264.9	300.7	318.6
62.5°	194.5	208.8	249.4	286.4	305.5
65°	171.8	188.5	235.1	272.1	291.1
67.5°	151.5	169.4	217.2	256.5	274.4
70°	127.7	150.3	199.3	237.4	257.7
72.5°	106.2	131.3	179.0	217.2	235.1
75°	84.7	112.2	158.7	190.9	201.7
77.5°	65.6	91.9	136.0	145.6	146.8
80°	48.9	72.8	101.4	102.6	106.2
82.5°	33.4	51.3	65.6	71.6	72.8
85°	21.5	29.8	37.0	38.2	40.6
87.5°	9.5	10.7	13.1	11.9	11.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)