

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: P312623

Luminaire Tested: **22FCZ2-24HE-UNV-L83050-RDP-CA125-W2A-U-4500K**

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: P312623
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: 22FCZ2-24HE-UNV-L83050-RDP-CA125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (168) 4500K 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: 1552.0 lumens
Efficiency: N/A
Efficacy: 78.4 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

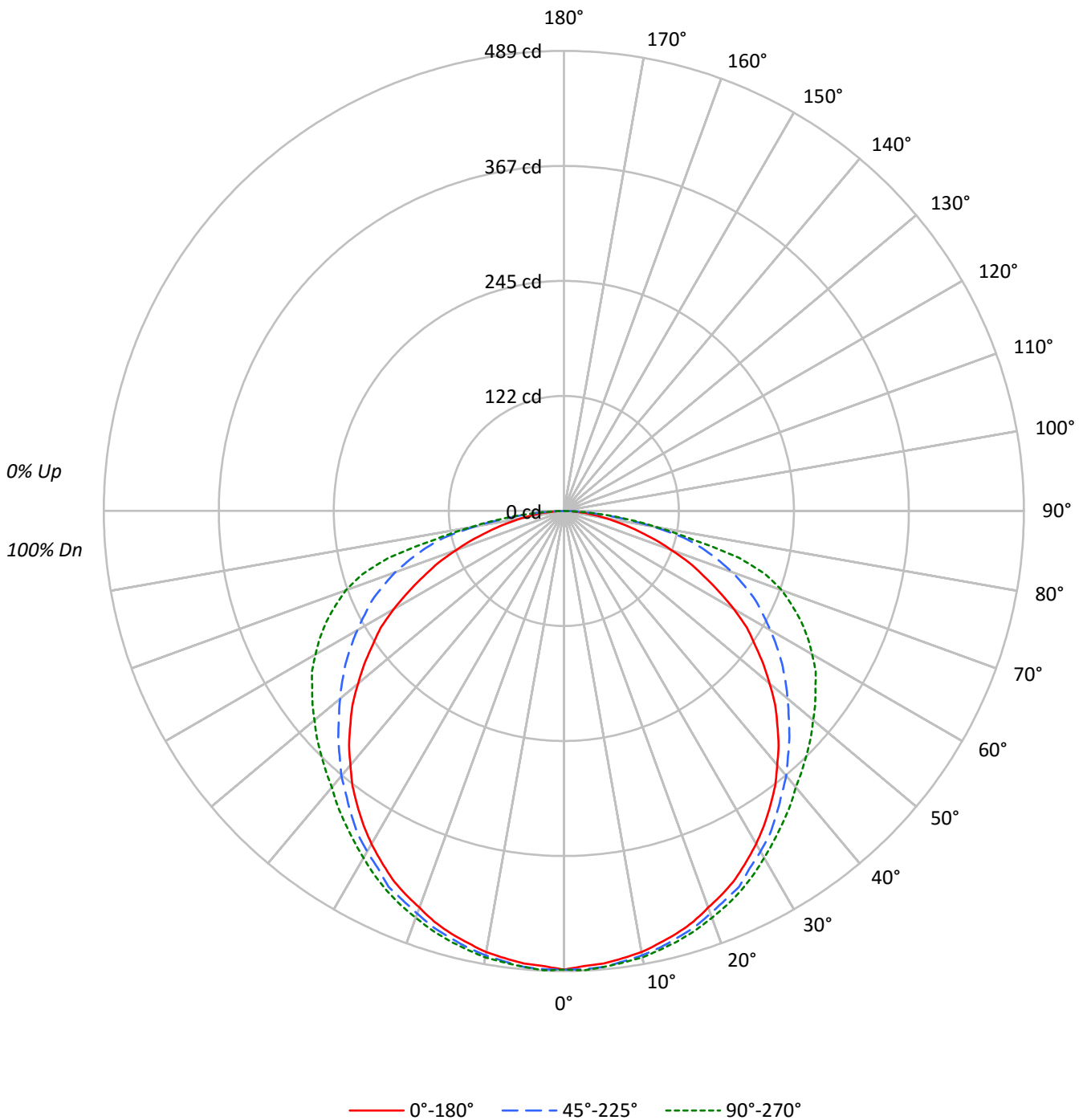
Input Watts (W): 19.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1312	1312	1312
5°	1304	1314	1314
10°	1301	1310	1317
15°	1295	1307	1317
20°	1285	1304	1318
25°	1281	1309	1322
30°	1270	1299	1323
35°	1257	1294	1331
40°	1239	1291	1348
45°	1221	1290	1390
50°	1195	1300	1448
55°	1163	1328	1532
60°	1124	1364	1640
65°	1047	1432	1774
70°	961	1500	1940
75°	843	1578	2006
80°	725	1503	1574
85°	636	1093	1198



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.1	3.0
10°-20°	132.4	8.5
20°-30°	202.0	13.0
30°-40°	246.7	15.9
40°-50°	263.7	17.0
50°-60°	254.6	16.4
60°-70°	219.1	14.1
70°-80°	148.3	9.6
80°-90°	39.1	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°	380.5	24.5
0°-40°	627.2	40.4
0°-60°	1145.5	73.8
0°-90°	1552.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1552.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	488	488	488	488	488	
5°	483	484	486	486	486	46
15°	465	466	469	472	473	131
25°	432	434	441	443	445	199
35°	382	386	394	402	405	239
45°	321	326	339	356	365	248
55°	248	256	283	312	326	222
65°	164	180	225	260	279	164
75°	81	107	152	183	193	87
85°	21	28	35	36	39	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	487.5	487.5	487.5	487.5	487.5
2.5°	484.1	485.2	487.5	487.5	488.7
5°	482.9	484.1	486.4	486.4	486.4
7.5°	479.5	480.7	482.9	484.1	484.1
10°	476.1	477.2	479.5	480.7	481.8
12.5°	470.4	471.5	475.0	477.2	477.2
15°	464.7	465.8	469.2	471.5	472.7
17.5°	457.8	460.1	463.5	465.8	467.0
20°	448.7	451.0	455.5	459.0	460.1
22.5°	440.7	443.0	447.6	451.0	453.3
25°	431.6	433.8	440.7	443.0	445.3
27.5°	420.1	422.4	428.1	432.7	436.1
30°	408.7	411.0	417.9	423.6	425.9
32.5°	396.2	399.6	407.6	412.2	415.6
35°	382.5	385.9	393.9	401.9	405.3
37.5°	368.8	372.2	380.2	390.5	395.0
40°	352.8	357.4	367.6	381.3	383.6
42.5°	337.9	343.7	352.8	368.8	374.5
45°	320.8	326.5	339.1	356.2	365.3
47.5°	304.8	310.5	324.2	344.8	356.2
50°	285.4	293.4	310.5	334.5	345.9
52.5°	267.2	274.0	296.8	323.1	336.8
55°	247.8	255.7	283.1	311.7	326.5
57.5°	230.6	237.5	268.3	300.3	317.4
60°	208.9	218.1	253.5	287.7	304.8
62.5°	186.1	199.8	238.6	274.0	292.3
65°	164.4	180.4	224.9	260.3	278.6
67.5°	145.0	162.1	207.8	245.5	262.6
70°	122.2	143.9	190.7	227.2	246.6
72.5°	101.6	125.6	171.3	207.8	224.9
75°	81.1	107.3	151.8	182.7	192.9
77.5°	62.8	87.9	130.2	139.3	140.4
80°	46.8	69.6	97.0	98.2	101.6
82.5°	32.0	49.1	62.8	68.5	69.6
85°	20.6	28.5	35.4	36.5	38.8
87.5°	9.1	10.3	12.6	11.4	11.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)