

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: P308143

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-HRP-CP250-W2A-U-3500K**

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: P308143
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: 22FCZ2-24HE-UNV-L82765-HRP-CP250-W2A-U-3500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. 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: 1546.0 lumens
Efficiency: N/A
Efficacy: 81.4 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

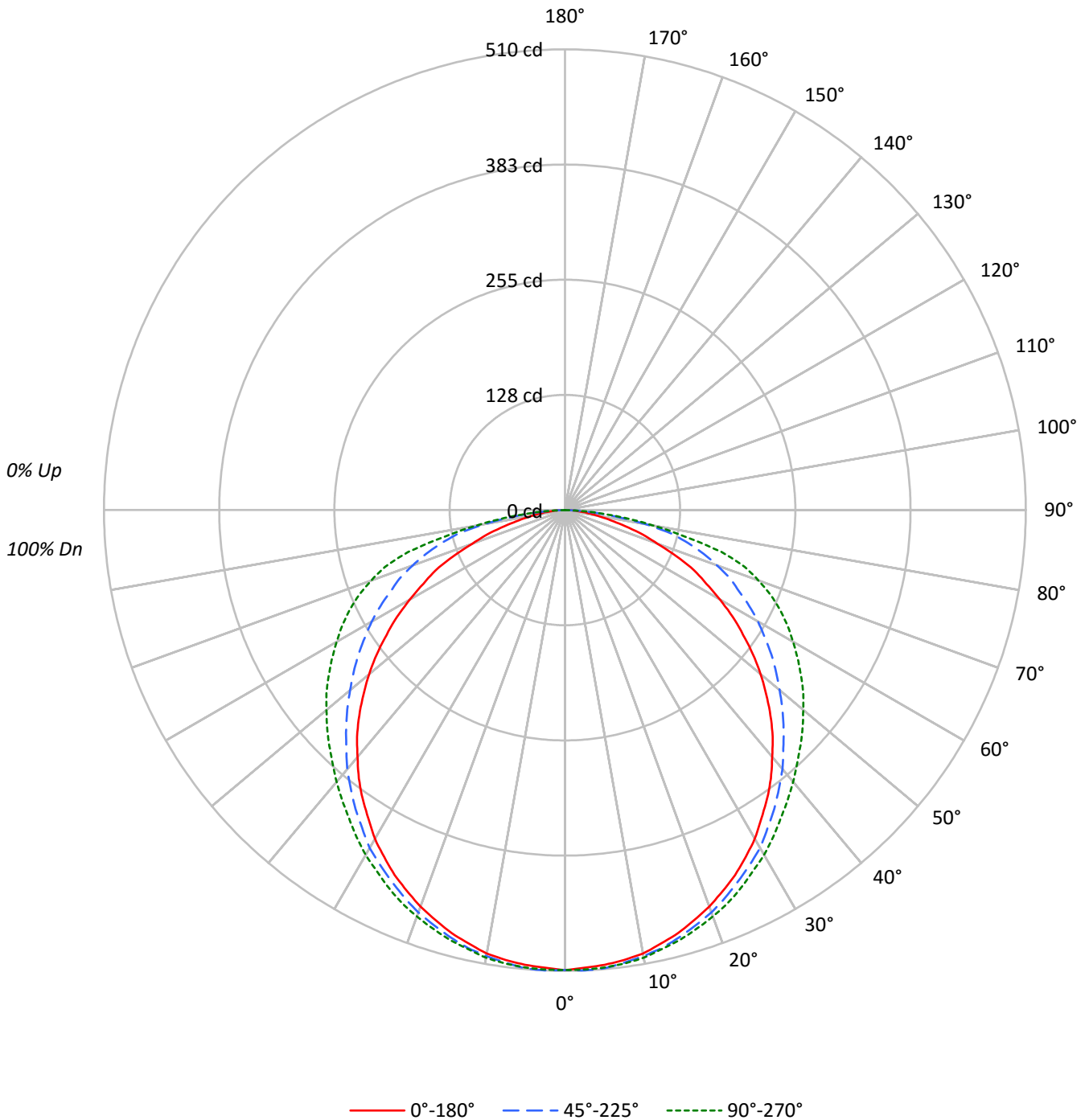
Input Watts (W): 19
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1370	1370	1370
5°	1365	1375	1373
10°	1362	1370	1375
15°	1350	1364	1372
20°	1338	1357	1371
25°	1323	1347	1370
30°	1306	1342	1370
35°	1282	1327	1368
40°	1254	1316	1381
45°	1225	1303	1403
50°	1184	1298	1441
55°	1130	1308	1496
60°	1066	1328	1569
65°	1006	1354	1677
70°	859	1412	1795
75°	719	1470	1865
80°	589	1421	1557
85°	513	1053	1145



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.2	3.1
10°-20°	138.0	8.9
20°-30°	209.2	13.5
30°-40°	252.6	16.3
40°-50°	265.4	17.2
50°-60°	249.7	16.2
60°-70°	208.2	13.5
70°-80°	137.9	8.9
80°-90°	36.8	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°	395.4	25.6
0°-40°	648.0	41.9
0°-60°	1163.1	75.2
0°-90°	1546.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1546.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	509	509	509	509	509	
5°	505	506	509	509	508	48
15°	485	487	490	492	492	137
25°	446	449	454	459	461	205
35°	390	394	404	412	416	244
45°	322	327	342	360	369	248
55°	241	252	279	307	319	215
65°	158	172	213	248	263	154
75°	69	96	141	171	179	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°	509.1	509.1	509.1	509.1	509.1
2.5°	507.1	508.1	510.1	510.1	509.1
5°	505.2	506.2	509.1	509.1	508.1
7.5°	502.3	503.2	505.2	507.1	506.2
10°	498.4	499.3	501.3	503.2	503.2
12.5°	491.5	492.5	496.4	497.4	497.4
15°	484.7	486.6	489.6	491.5	492.5
17.5°	475.9	477.9	481.8	485.7	485.7
20°	467.1	469.1	474.0	477.9	478.8
22.5°	456.4	459.3	464.2	469.1	471.0
25°	445.7	448.6	453.5	459.3	461.3
27.5°	433.0	435.9	442.8	449.6	450.6
30°	420.3	423.3	432.0	437.9	440.8
32.5°	404.7	408.6	417.4	426.2	429.1
35°	390.1	394.0	403.8	412.5	416.4
37.5°	374.5	378.4	389.1	399.9	404.7
40°	356.9	361.8	374.5	386.2	393.0
42.5°	340.4	345.2	357.9	373.5	380.3
45°	321.8	326.7	342.3	359.9	368.6
47.5°	302.3	308.2	326.7	348.2	356.9
50°	282.8	289.6	310.1	334.5	344.3
52.5°	262.3	271.1	294.5	320.9	332.6
55°	240.9	251.6	278.9	307.2	318.9
57.5°	220.4	230.2	262.3	292.6	305.3
60°	198.0	210.7	246.7	277.9	291.6
62.5°	176.5	190.2	230.2	263.3	277.9
65°	158.0	171.6	212.6	247.7	263.3
67.5°	133.6	152.1	198.0	231.1	246.7
70°	109.2	134.6	179.4	213.6	228.2
72.5°	90.7	115.1	160.9	195.0	208.7
75°	69.2	96.5	141.4	170.7	179.4
77.5°	51.7	80.0	120.9	135.6	136.5
80°	38.0	61.4	91.7	96.5	100.5
82.5°	26.3	42.9	59.5	65.3	67.3
85°	16.6	25.4	34.1	37.1	37.1
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)