

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: P308411

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-RDP-CP250-W2A-U-2700K**

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: P308411
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-L82765-RDP-CP250-W2A-U-2700K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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: 1251.0 lumens
Efficiency: N/A
Efficacy: 66.2 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

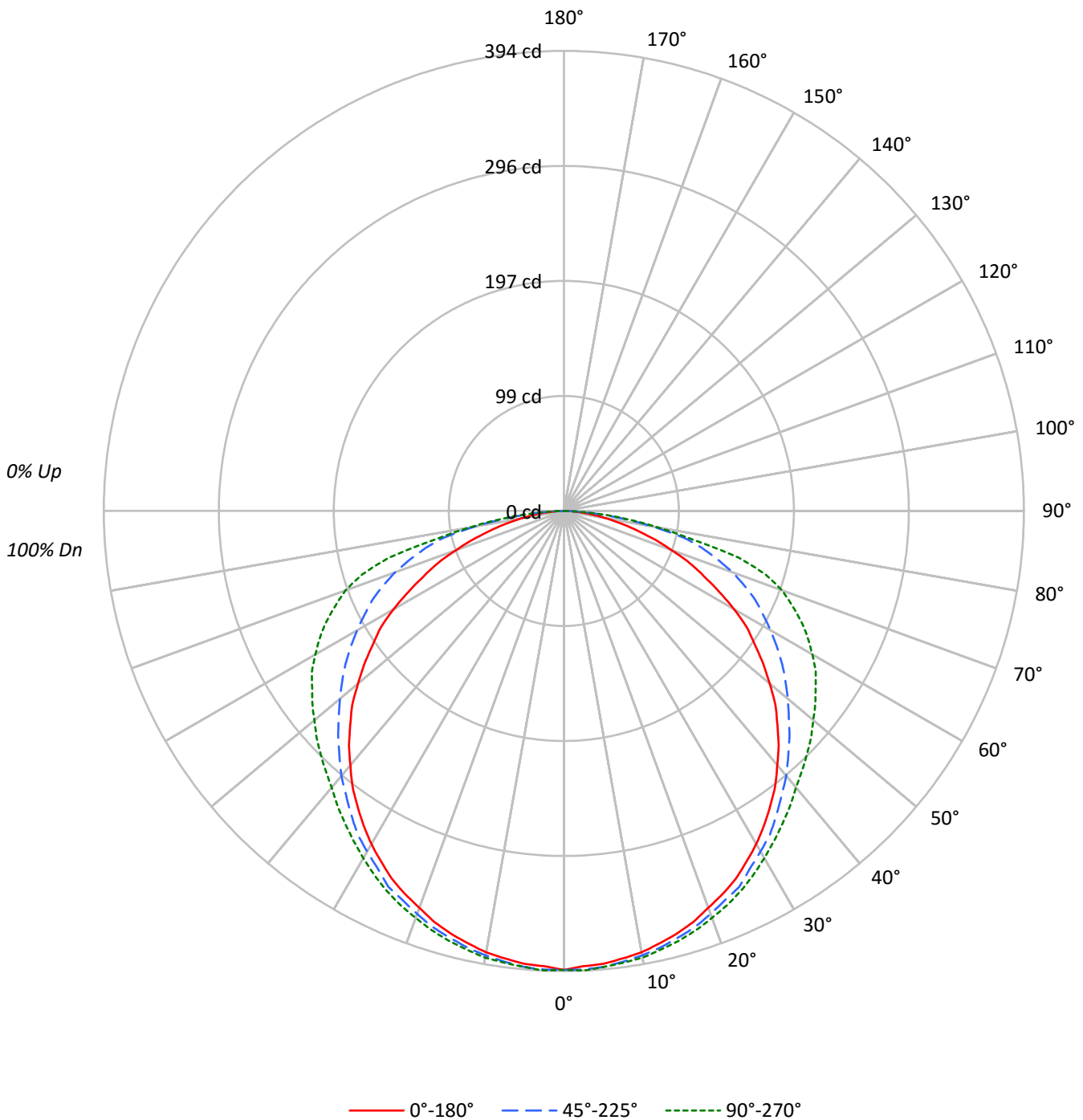
Input Watts (W): 18.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1058	1058	1058
5°	1052	1059	1059
10°	1049	1056	1061
15°	1044	1054	1061
20°	1036	1052	1062
25°	1033	1055	1066
30°	1024	1047	1067
35°	1013	1043	1073
40°	999	1041	1086
45°	984	1040	1121
50°	963	1048	1167
55°	937	1071	1235
60°	906	1100	1322
65°	844	1154	1429
70°	775	1209	1564
75°	679	1273	1617
80°	584	1212	1269
85°	513	880	966



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.2	3.0
10°-20°	106.7	8.5
20°-30°	162.8	13.0
30°-40°	198.8	15.9
40°-50°	212.6	17.0
50°-60°	205.2	16.4
60°-70°	176.6	14.1
70°-80°	119.5	9.6
80°-90°	31.5	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°	306.7	24.5
0°-40°	505.6	40.4
0°-60°	923.3	73.8
0°-90°	1251.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1251.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	393	393	393	393	393	
5°	389	390	392	392	392	37
15°	375	376	378	380	381	106
25°	348	350	355	357	359	160
35°	308	311	318	324	327	193
45°	259	263	273	287	294	200
55°	200	206	228	251	263	179
65°	132	145	181	210	224	132
75°	65	86	122	147	156	70
85°	17	23	28	29	31	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	393.0	393.0	393.0	393.0	393.0
2.5°	390.2	391.1	393.0	393.0	393.9
5°	389.3	390.2	392.0	392.0	392.0
7.5°	386.5	387.4	389.3	390.2	390.2
10°	383.8	384.7	386.5	387.4	388.4
12.5°	379.2	380.1	382.8	384.7	384.7
15°	374.6	375.5	378.2	380.1	381.0
17.5°	369.0	370.9	373.6	375.5	376.4
20°	361.7	363.5	367.2	370.0	370.9
22.5°	355.2	357.1	360.8	363.5	365.4
25°	347.9	349.7	355.2	357.1	358.9
27.5°	338.7	340.5	345.1	348.8	351.5
30°	329.5	331.3	336.8	341.4	343.3
32.5°	319.3	322.1	328.5	332.2	335.0
35°	308.3	311.1	317.5	323.9	326.7
37.5°	297.3	300.0	306.5	314.7	318.4
40°	284.4	288.0	296.3	307.4	309.2
42.5°	272.4	277.0	284.4	297.3	301.9
45°	258.6	263.2	273.3	287.1	294.5
47.5°	245.7	250.3	261.4	277.9	287.1
50°	230.1	236.5	250.3	269.6	278.8
52.5°	215.3	220.9	239.3	260.4	271.5
55°	199.7	206.1	228.2	251.2	263.2
57.5°	185.9	191.4	216.3	242.0	255.8
60°	168.4	175.8	204.3	231.9	245.7
62.5°	150.0	161.0	192.3	220.9	235.6
65°	132.5	145.4	181.3	209.8	224.5
67.5°	116.9	130.7	167.5	197.9	211.7
70°	98.5	116.0	153.7	183.1	198.8
72.5°	81.9	101.2	138.0	167.5	181.3
75°	65.3	86.5	122.4	147.2	155.5
77.5°	50.6	70.9	104.9	112.3	113.2
80°	37.7	56.1	78.2	79.1	81.9
82.5°	25.8	39.6	50.6	55.2	56.1
85°	16.6	23.0	28.5	29.4	31.3
87.5°	7.4	8.3	10.1	9.2	9.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)