

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: P312138

Luminaire Tested: **14FCZ2-44-UNV-L83050-RDP-CP250-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: P312138
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-44-UNV-L83050-RDP-CP250-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.250" POLYCARB 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: 2624.0 lumens
Efficiency: N/A
Efficacy: 65.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

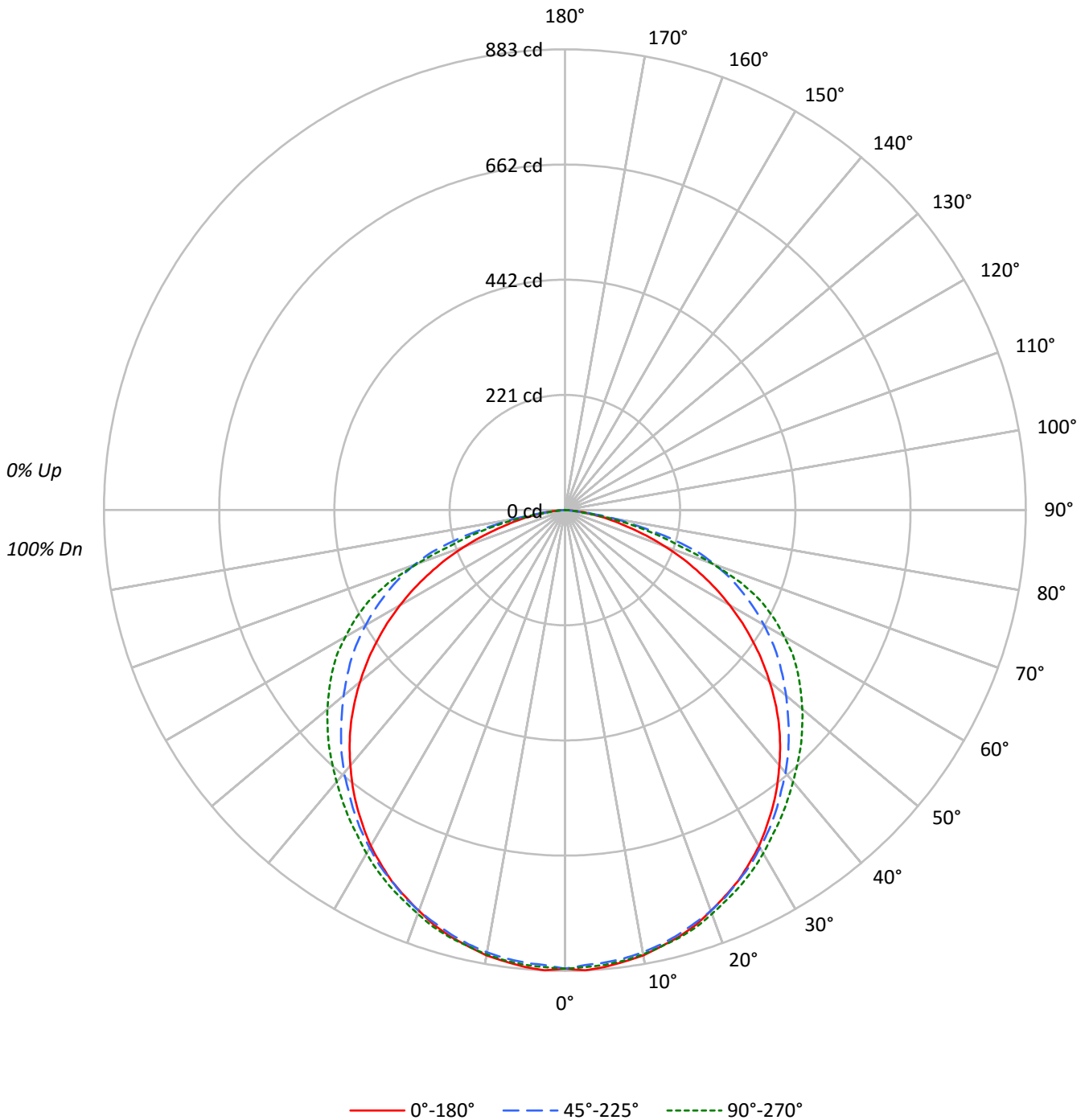
Input Watts (W): 40.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2365	2365	2365
5°	2374	2352	2363
10°	2368	2351	2362
15°	2357	2346	2363
20°	2341	2341	2358
25°	2330	2330	2360
30°	2311	2323	2362
35°	2281	2315	2369
40°	2245	2310	2389
45°	2206	2308	2433
50°	2144	2316	2487
55°	2066	2345	2556
60°	1962	2370	2613
65°	1813	2400	2648
70°	1612	2418	2369
75°	1300	2173	1895
80°	1017	1523	1238
85°	695	442	315



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.2	3.2
10°-20°	238.7	9.1
20°-30°	363.4	13.8
30°-40°	442.6	16.9
40°-50°	469.6	17.9
50°-60°	443.2	16.9
60°-70°	357.8	13.6
70°-80°	194.1	7.4
80°-90°	31.4	1.2
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°	685.2	26.1
0°-40°	1127.9	43.0
0°-60°	2040.6	77.8
0°-90°	2624.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2624.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	879	879	879	879	879	
5°	879	877	871	877	875	83
15°	846	844	842	848	848	239
25°	785	783	785	793	795	361
35°	694	699	705	719	721	434
45°	580	588	606	629	639	446
55°	440	459	500	533	545	393
65°	285	320	377	408	416	282
75°	125	182	209	188	182	137
85°	22	25	14	12	10	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	878.8	878.8	878.8	878.8	878.8
2.5°	882.9	878.8	872.7	878.8	876.8
5°	878.8	876.8	870.7	876.8	874.7
7.5°	872.7	872.7	866.6	870.7	870.7
10°	866.6	864.5	860.4	866.6	864.5
12.5°	856.3	854.3	852.2	858.4	856.3
15°	846.1	844.0	842.0	848.1	848.1
17.5°	833.8	831.7	829.7	837.9	837.9
20°	817.4	817.4	817.4	825.6	823.5
22.5°	801.0	801.0	803.0	811.2	809.2
25°	784.6	782.6	784.6	792.8	794.9
27.5°	764.1	766.2	768.2	776.4	778.5
30°	743.6	745.7	747.7	758.0	760.0
32.5°	719.1	723.2	727.2	739.5	739.5
35°	694.5	698.6	704.7	719.1	721.1
37.5°	667.8	671.9	680.1	696.5	700.6
40°	639.2	645.3	657.6	674.0	680.1
42.5°	610.5	618.7	633.0	651.5	659.6
45°	579.8	587.9	606.4	628.9	639.2
47.5°	547.0	557.2	579.8	608.4	616.6
50°	512.1	526.5	553.1	583.8	594.1
52.5°	477.3	493.7	526.5	559.3	569.5
55°	440.4	458.9	499.9	532.6	544.9
57.5°	403.6	424.1	471.2	506.0	518.3
60°	364.6	389.2	440.4	475.3	485.5
62.5°	325.7	354.4	409.7	444.5	452.7
65°	284.8	319.6	376.9	407.7	415.9
67.5°	245.8	286.8	344.2	366.7	366.7
70°	204.9	249.9	307.3	313.4	301.1
72.5°	163.9	215.1	266.3	243.8	233.5
75°	125.0	182.3	209.0	188.5	182.3
77.5°	94.2	147.5	147.5	135.2	131.1
80°	65.6	112.7	98.3	86.0	79.9
82.5°	43.0	63.5	51.2	41.0	34.8
85°	22.5	24.6	14.3	12.3	10.2
87.5°	8.2	4.1	2.0	4.1	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)