

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: P307377

Luminaire Tested: **14FCZ2-29-UNV-L82765-RDP-CP250-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: P307377
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: 14FCZ2-29-UNV-L82765-RDP-CP250-W2A-U-3000K
Description: 1'X4' 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: 1576.0 lumens
Efficiency: N/A
Efficacy: 66.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

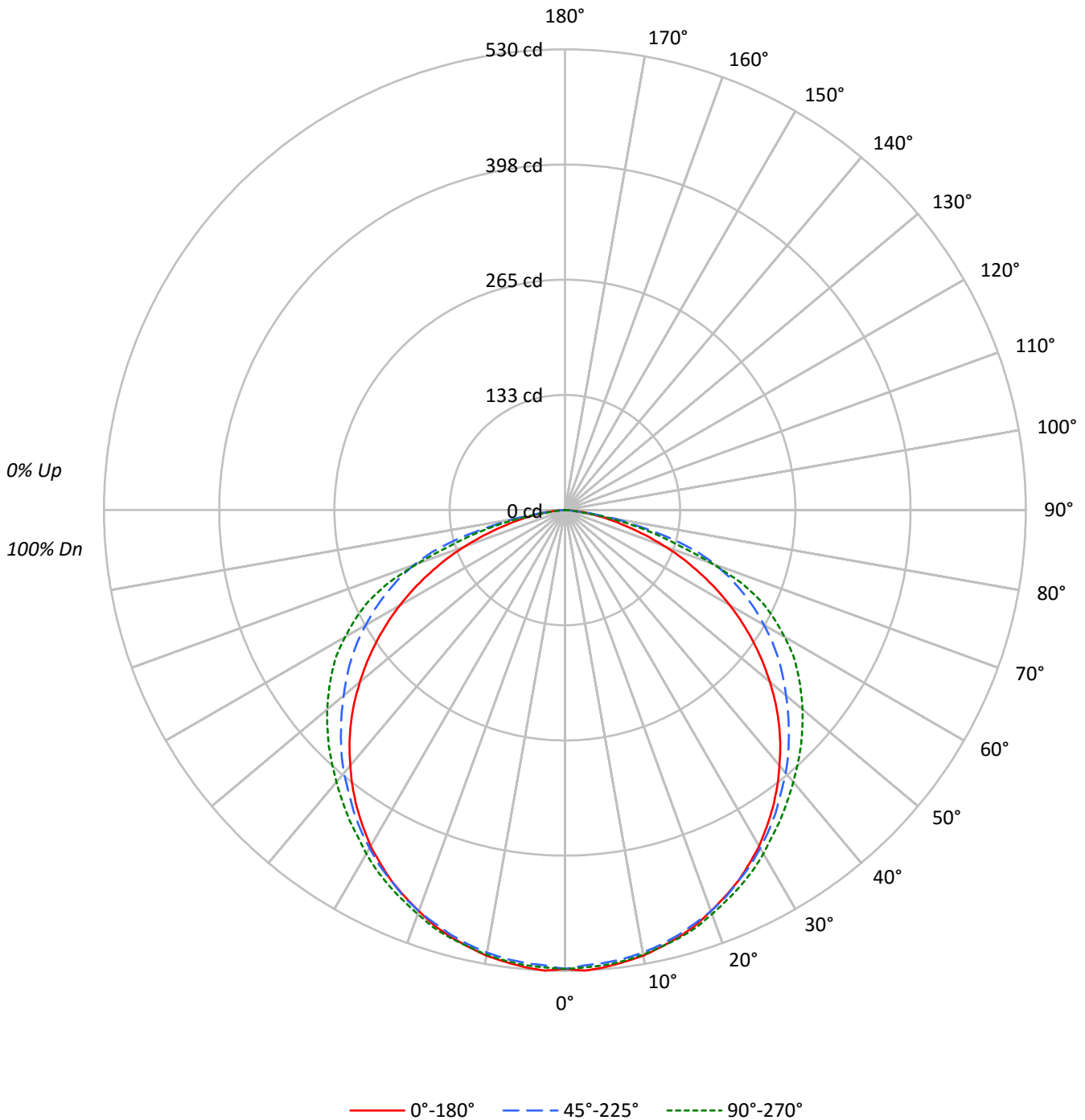
Input Watts (W): 23.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1420	1420	1420
5°	1426	1412	1419
10°	1422	1412	1419
15°	1416	1409	1419
20°	1406	1406	1416
25°	1399	1399	1417
30°	1388	1395	1418
35°	1370	1391	1423
40°	1349	1388	1435
45°	1325	1386	1461
50°	1288	1391	1494
55°	1241	1408	1536
60°	1179	1424	1569
65°	1089	1442	1591
70°	968	1452	1423
75°	781	1305	1138
80°	611	916	744
85°	417	266	191



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.0	3.2
10°-20°	143.3	9.1
20°-30°	218.3	13.8
30°-40°	265.8	16.9
40°-50°	282.0	17.9
50°-60°	266.2	16.9
60°-70°	214.9	13.6
70°-80°	116.6	7.4
80°-90°	18.9	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°	411.6	26.1
0°-40°	677.4	43.0
0°-60°	1225.6	77.8
0°-90°	1576.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1576.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	528	528	528	528	528	
5°	528	527	523	527	525	50
15°	508	507	506	509	509	143
25°	471	470	471	476	477	217
35°	417	420	423	432	433	261
45°	348	353	364	378	384	268
55°	264	276	300	320	327	236
65°	171	192	226	245	250	169
75°	75	110	126	113	110	82
85°	14	15	9	7	6	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	527.8	527.8	527.8	527.8	527.8
2.5°	530.3	527.8	524.2	527.8	526.6
5°	527.8	526.6	522.9	526.6	525.4
7.5°	524.2	524.2	520.5	522.9	522.9
10°	520.5	519.2	516.8	520.5	519.2
12.5°	514.3	513.1	511.8	515.5	514.3
15°	508.2	506.9	505.7	509.4	509.4
17.5°	500.8	499.5	498.3	503.2	503.2
20°	490.9	490.9	490.9	495.9	494.6
22.5°	481.1	481.1	482.3	487.2	486.0
25°	471.2	470.0	471.2	476.2	477.4
27.5°	458.9	460.2	461.4	466.3	467.6
30°	446.6	447.9	449.1	455.2	456.5
32.5°	431.9	434.3	436.8	444.2	444.2
35°	417.1	419.6	423.3	431.9	433.1
37.5°	401.1	403.6	408.5	418.3	420.8
40°	383.9	387.6	395.0	404.8	408.5
42.5°	366.7	371.6	380.2	391.3	396.2
45°	348.2	353.1	364.2	377.7	383.9
47.5°	328.5	334.7	348.2	365.4	370.4
50°	307.6	316.2	332.2	350.7	356.8
52.5°	286.7	296.5	316.2	335.9	342.1
55°	264.5	275.6	300.2	319.9	327.3
57.5°	242.4	254.7	283.0	303.9	311.3
60°	219.0	233.8	264.5	285.5	291.6
62.5°	195.6	212.9	246.1	267.0	271.9
65°	171.0	191.9	226.4	244.9	249.8
67.5°	147.6	172.3	206.7	220.2	220.2
70°	123.0	150.1	184.6	188.3	180.9
72.5°	98.4	129.2	160.0	146.4	140.3
75°	75.1	109.5	125.5	113.2	109.5
77.5°	56.6	88.6	88.6	81.2	78.7
80°	39.4	67.7	59.1	51.7	48.0
82.5°	25.8	38.1	30.8	24.6	20.9
85°	13.5	14.8	8.6	7.4	6.2
87.5°	4.9	2.5	1.2	2.5	1.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)