

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: P307064

Luminaire Tested: **14FCZ2-25-UNV-L82765-HRP-CP250-W2A-U-4000K**

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: P307064
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-25-UNV-L82765-HRP-CP250-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB SHEET
Light Source: (168) 4000K 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: 1648.0 lumens
Efficiency: N/A
Efficacy: 83.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

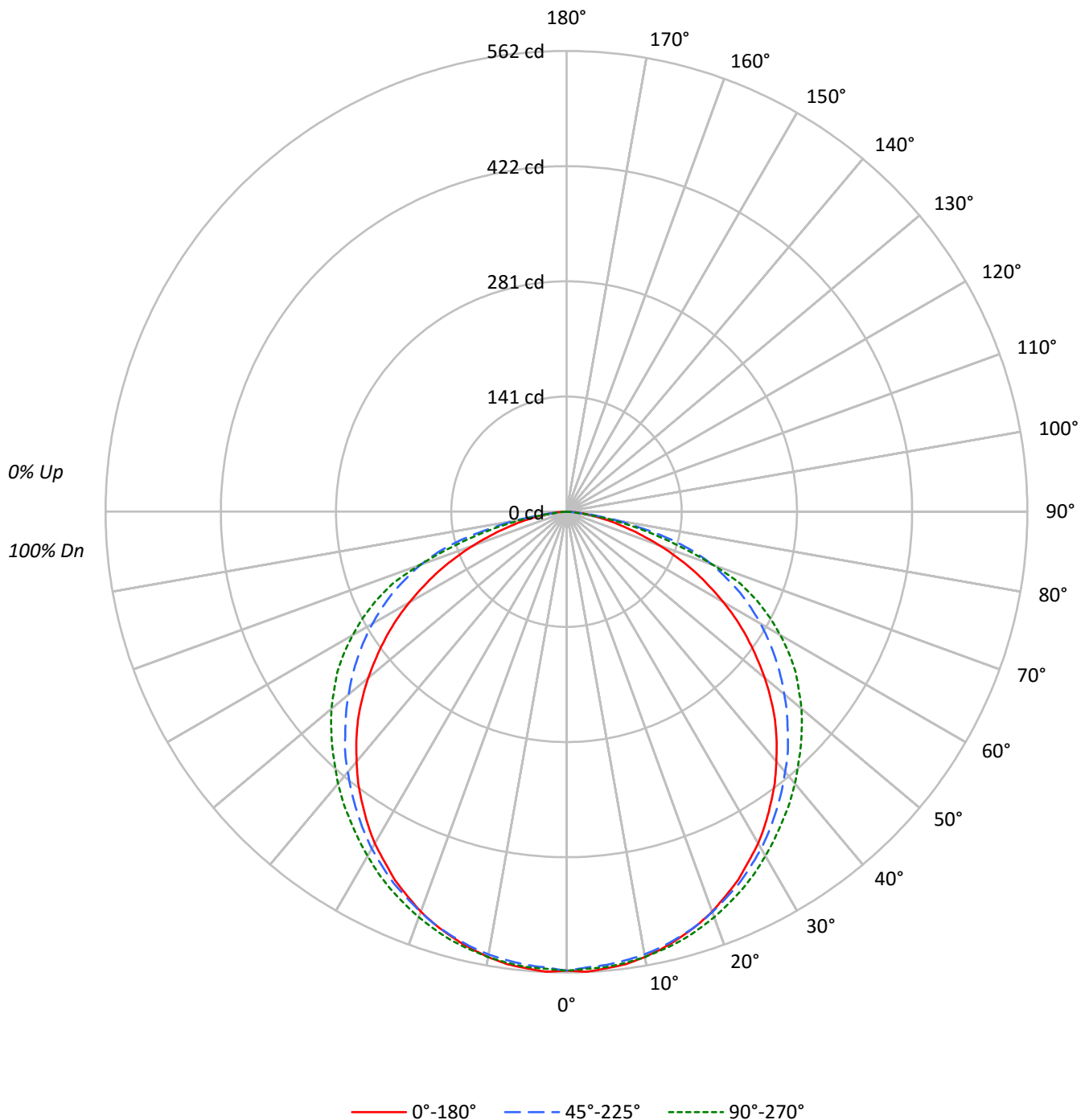
Input Watts (W): 19.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	109	104	100	96	106	102	98	94	97	94	91		93	91	88		84
2	99	90	83	78	96	88	82	77	85	79	75		82	77	73		69
3	90	79	71	64	87	77	70	64	74	68	62		72	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		64	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	69	56	47	40	68	55	46	40	53	45	40		51	45	39		37
7	64	51	42	36	63	50	41	35	48	41	35		47	40	35		33
8	60	46	38	32	58	45	37	32	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	38	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1506	1506	1506
5°	1511	1499	1506
10°	1507	1498	1507
15°	1497	1494	1509
20°	1487	1489	1508
25°	1471	1483	1508
30°	1452	1475	1507
35°	1427	1464	1510
40°	1398	1456	1522
45°	1369	1451	1538
50°	1321	1451	1566
55°	1264	1459	1600
60°	1188	1470	1621
65°	1095	1485	1630
70°	954	1488	1500
75°	787	1385	1212
80°	618	996	810
85°	479	383	191



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.0	3.2
10°-20°	152.0	9.2
20°-30°	230.9	14.0
30°-40°	279.8	17.0
40°-50°	294.8	17.9
50°-60°	275.2	16.7
60°-70°	219.9	13.3
70°-80°	121.0	7.3
80°-90°	21.4	1.3
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°	435.9	26.5
0°-40°	715.7	43.4
0°-60°	1285.7	78.0
0°-90°	1648.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1648.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	560	560	560	560	560	
5°	559	558	555	559	558	53
15°	537	537	536	542	542	152
25°	495	496	500	507	508	228
35°	434	438	446	457	460	272
45°	360	366	381	398	404	277
55°	270	283	311	333	341	241
65°	172	194	233	252	256	169
75°	76	108	133	120	117	81
85°	16	20	12	8	6	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	559.7	559.7	559.7	559.7	559.7
2.5°	561.7	560.2	556.6	559.7	558.1
5°	559.2	557.6	555.0	558.6	557.6
7.5°	556.6	554.5	551.9	556.0	555.0
10°	551.4	549.8	548.3	551.9	551.4
12.5°	545.2	544.6	543.1	547.2	546.7
15°	537.4	537.4	536.3	541.5	541.5
17.5°	529.1	528.6	529.1	534.8	534.3
20°	519.2	519.2	519.8	526.5	526.5
22.5°	507.3	507.8	509.4	517.7	517.2
25°	495.4	496.4	499.6	506.8	507.8
27.5°	480.9	483.5	487.1	495.9	497.0
30°	467.4	469.0	474.7	483.0	485.0
32.5°	451.4	454.5	460.7	470.0	472.6
35°	434.3	438.4	445.7	457.1	459.7
37.5°	417.2	420.8	430.6	442.6	447.2
40°	398.0	404.2	414.6	428.0	433.2
42.5°	379.3	385.5	399.5	413.5	418.2
45°	359.6	366.4	381.4	398.5	404.2
47.5°	337.9	345.6	364.8	383.0	389.2
50°	315.6	325.4	346.7	366.9	374.1
52.5°	292.3	304.7	329.1	350.3	357.0
55°	269.5	282.9	310.9	332.7	341.0
57.5°	246.2	260.7	292.3	317.1	321.8
60°	220.8	238.4	273.1	294.9	301.1
62.5°	195.9	216.1	253.4	274.1	279.3
65°	172.0	193.8	233.2	252.4	256.0
67.5°	146.1	172.0	210.9	228.5	229.6
70°	121.3	151.3	189.1	197.4	190.7
72.5°	96.9	129.0	163.8	157.0	151.3
75°	75.7	108.3	133.2	119.7	116.6
77.5°	56.0	88.6	95.4	88.1	82.4
80°	39.9	70.0	64.3	54.9	52.3
82.5°	27.5	44.0	35.2	27.5	23.8
85°	15.5	19.7	12.4	7.8	6.2
87.5°	6.7	4.7	2.6	2.1	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)