

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: P307023

Luminaire Tested: **14FCZ2-20-UNV-L82765-HRP-CP250-W2A-U-5700K**

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: P307023
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: 14FCZ2-20-UNV-L82765-HRP-CP250-W2A-U-5700K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB SHEET
Light Source: (168) 5700K 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: 1475.0 lumens
Efficiency: N/A
Efficacy: 86.8 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

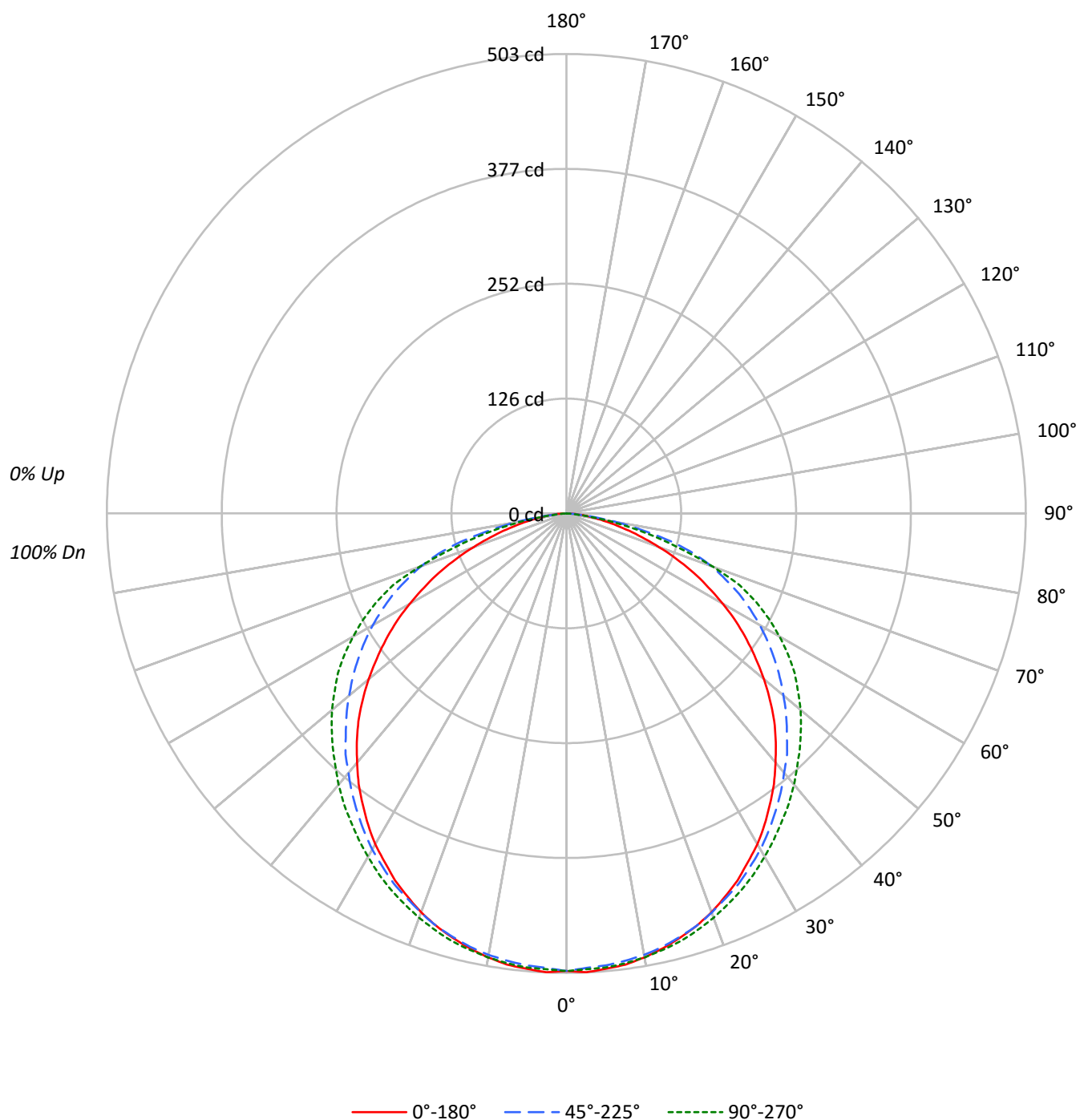
Input Watts (W): 17
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1348	1348	1348
5°	1352	1342	1348
10°	1348	1341	1348
15°	1340	1337	1350
20°	1331	1332	1349
25°	1317	1328	1349
30°	1300	1320	1349
35°	1277	1310	1351
40°	1251	1303	1362
45°	1225	1299	1377
50°	1183	1299	1402
55°	1132	1306	1432
60°	1063	1315	1450
65°	981	1329	1459
70°	854	1332	1343
75°	704	1239	1085
80°	553	891	725
85°	429	343	173



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.4	3.2
10°-20°	136.1	9.2
20°-30°	206.6	14.0
30°-40°	250.4	17.0
40°-50°	263.9	17.9
50°-60°	246.3	16.7
60°-70°	196.9	13.3
70°-80°	108.3	7.3
80°-90°	19.1	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°	390.1	26.5
0°-40°	640.5	43.4
0°-60°	1150.7	78.0
0°-90°	1475.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1475.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	501	501	501	501	501	
5°	500	499	497	500	499	48
15°	481	481	480	485	485	136
25°	443	444	447	454	454	204
35°	389	392	399	409	411	243
45°	322	328	341	357	362	248
55°	241	253	278	298	305	215
65°	154	174	209	226	229	152
75°	68	97	119	107	104	73
85°	14	18	11	7	6	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	500.9	500.9	500.9	500.9	500.9
2.5°	502.8	501.4	498.1	500.9	499.5
5°	500.5	499.1	496.7	500.0	499.1
7.5°	498.1	496.3	494.0	497.7	496.7
10°	493.5	492.1	490.7	494.0	493.5
12.5°	487.9	487.5	486.1	489.8	489.3
15°	481.0	481.0	480.0	484.7	484.7
17.5°	473.6	473.1	473.6	478.7	478.2
20°	464.7	464.7	465.2	471.2	471.2
22.5°	454.1	454.5	455.9	463.3	462.9
25°	443.4	444.3	447.1	453.6	454.5
27.5°	430.4	432.7	436.0	443.9	444.8
30°	418.4	419.8	424.9	432.3	434.1
32.5°	404.0	406.8	412.3	420.7	423.0
35°	388.7	392.4	398.9	409.1	411.4
37.5°	373.4	376.6	385.4	396.1	400.3
40°	356.2	361.8	371.0	383.1	387.7
42.5°	339.5	345.1	357.6	370.1	374.3
45°	321.9	327.9	341.4	356.7	361.8
47.5°	302.4	309.4	326.5	342.8	348.3
50°	282.5	291.3	310.3	328.4	334.9
52.5°	261.6	272.7	294.5	313.5	319.6
55°	241.2	253.2	278.3	297.8	305.2
57.5°	220.3	233.3	261.6	283.9	288.0
60°	197.6	213.4	244.4	263.9	269.5
62.5°	175.3	193.4	226.8	245.4	250.0
65°	154.0	173.5	208.7	225.9	229.1
67.5°	130.8	154.0	188.8	204.5	205.5
70°	108.5	135.4	169.3	176.7	170.7
72.5°	86.7	115.5	146.6	140.5	135.4
75°	67.7	96.9	119.2	107.1	104.4
77.5°	50.1	79.3	85.3	78.8	73.7
80°	35.7	62.6	57.5	49.2	46.8
82.5°	24.6	39.4	31.5	24.6	21.3
85°	13.9	17.6	11.1	7.0	5.6
87.5°	6.0	4.2	2.3	1.9	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)