

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: P307024

Luminaire Tested: **14FCZ2-20-UNV-L82765-HRP-CP250-W2A-U-6500K**

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: P307024
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-6500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB SHEET
Light Source: (168) 6500K 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: 1478.0 lumens
Efficiency: N/A
Efficacy: 85.9 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

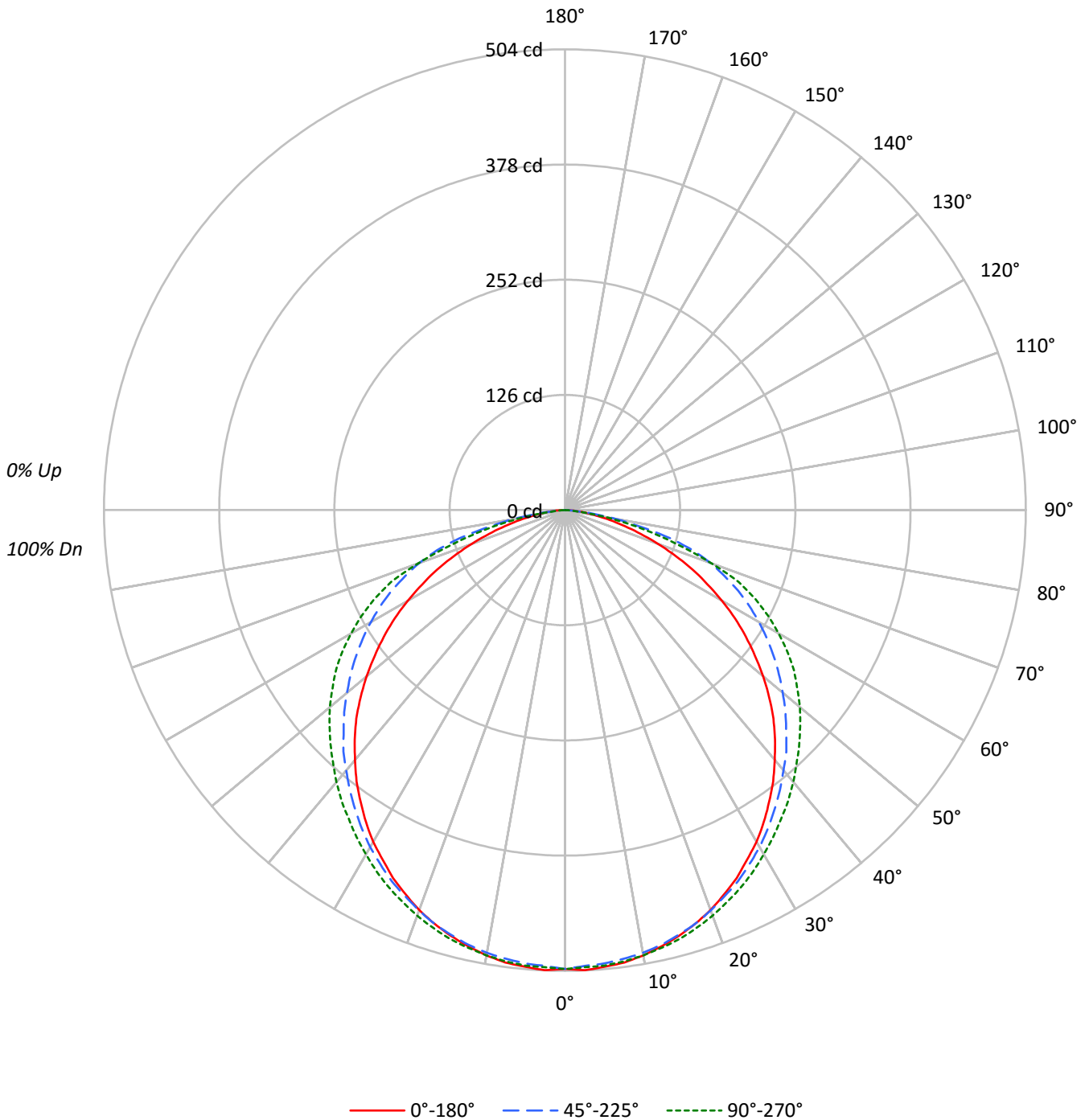
Input Watts (W): 17.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 14FC22-20-UNV-L82765-HRP-CP250-W2A-U-6500K

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	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1351	1351	1351
5°	1355	1345	1351
10°	1351	1344	1351
15°	1343	1340	1353
20°	1334	1335	1352
25°	1319	1330	1352
30°	1303	1323	1352
35°	1280	1313	1354
40°	1254	1306	1365
45°	1227	1302	1380
50°	1185	1302	1405
55°	1134	1308	1435
60°	1066	1318	1453
65°	982	1331	1462
70°	856	1334	1345
75°	706	1241	1088
80°	555	893	727
85°	429	346	173



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.5	3.2
10°-20°	136.4	9.2
20°-30°	207.1	14.0
30°-40°	250.9	17.0
40°-50°	264.4	17.9
50°-60°	246.8	16.7
60°-70°	197.3	13.3
70°-80°	108.5	7.3
80°-90°	19.2	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°	391.0	26.5
0°-40°	641.8	43.4
0°-60°	1153.1	78.0
0°-90°	1478.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1478.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	502	502	502	502	502	
5°	502	500	498	501	500	48
15°	482	482	481	486	486	136
25°	444	445	448	454	456	205
35°	390	393	400	410	412	244
45°	322	329	342	357	362	248
55°	242	254	279	298	306	216
65°	154	174	209	226	230	152
75°	68	97	119	107	105	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°	501.9	501.9	501.9	501.9	501.9
2.5°	503.8	502.4	499.1	501.9	500.5
5°	501.5	500.1	497.8	501.0	500.1
7.5°	499.1	497.3	495.0	498.7	497.8
10°	494.5	493.1	491.7	495.0	494.5
12.5°	488.9	488.5	487.1	490.8	490.3
15°	482.0	482.0	481.0	485.7	485.7
17.5°	474.5	474.1	474.5	479.6	479.2
20°	465.7	465.7	466.2	472.2	472.2
22.5°	455.0	455.5	456.9	464.3	463.8
25°	444.3	445.2	448.0	454.5	455.5
27.5°	431.3	433.6	436.9	444.8	445.7
30°	419.2	420.6	425.7	433.2	435.0
32.5°	404.8	407.6	413.2	421.5	423.9
35°	389.5	393.2	399.7	409.9	412.2
37.5°	374.1	377.4	386.2	396.9	401.1
40°	356.9	362.5	371.8	383.9	388.5
42.5°	340.2	345.8	358.3	370.9	375.1
45°	322.5	328.6	342.1	357.4	362.5
47.5°	303.0	310.0	327.2	343.5	349.0
50°	283.0	291.9	310.9	329.0	335.6
52.5°	262.1	273.3	295.1	314.2	320.2
55°	241.7	253.8	278.9	298.4	305.8
57.5°	220.8	233.8	262.1	284.4	288.6
60°	198.0	213.8	244.9	264.4	270.0
62.5°	175.7	193.8	227.3	245.9	250.5
65°	154.3	173.8	209.1	226.3	229.6
67.5°	131.1	154.3	189.2	205.0	205.9
70°	108.8	135.7	169.6	177.1	171.0
72.5°	86.9	115.7	146.9	140.8	135.7
75°	67.9	97.1	119.4	107.4	104.6
77.5°	50.2	79.5	85.5	79.0	73.9
80°	35.8	62.7	57.6	49.3	46.9
82.5°	24.6	39.5	31.6	24.6	21.4
85°	13.9	17.7	11.2	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)