

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: P307022

Luminaire Tested: **14FCZ2-20-UNV-L82765-HRP-CP250-W2A-U-5500K**

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: P307022
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-5500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB SHEET
Light Source: (168) 5500K 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: 1471.0 lumens
Efficiency: N/A
Efficacy: 86.5 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

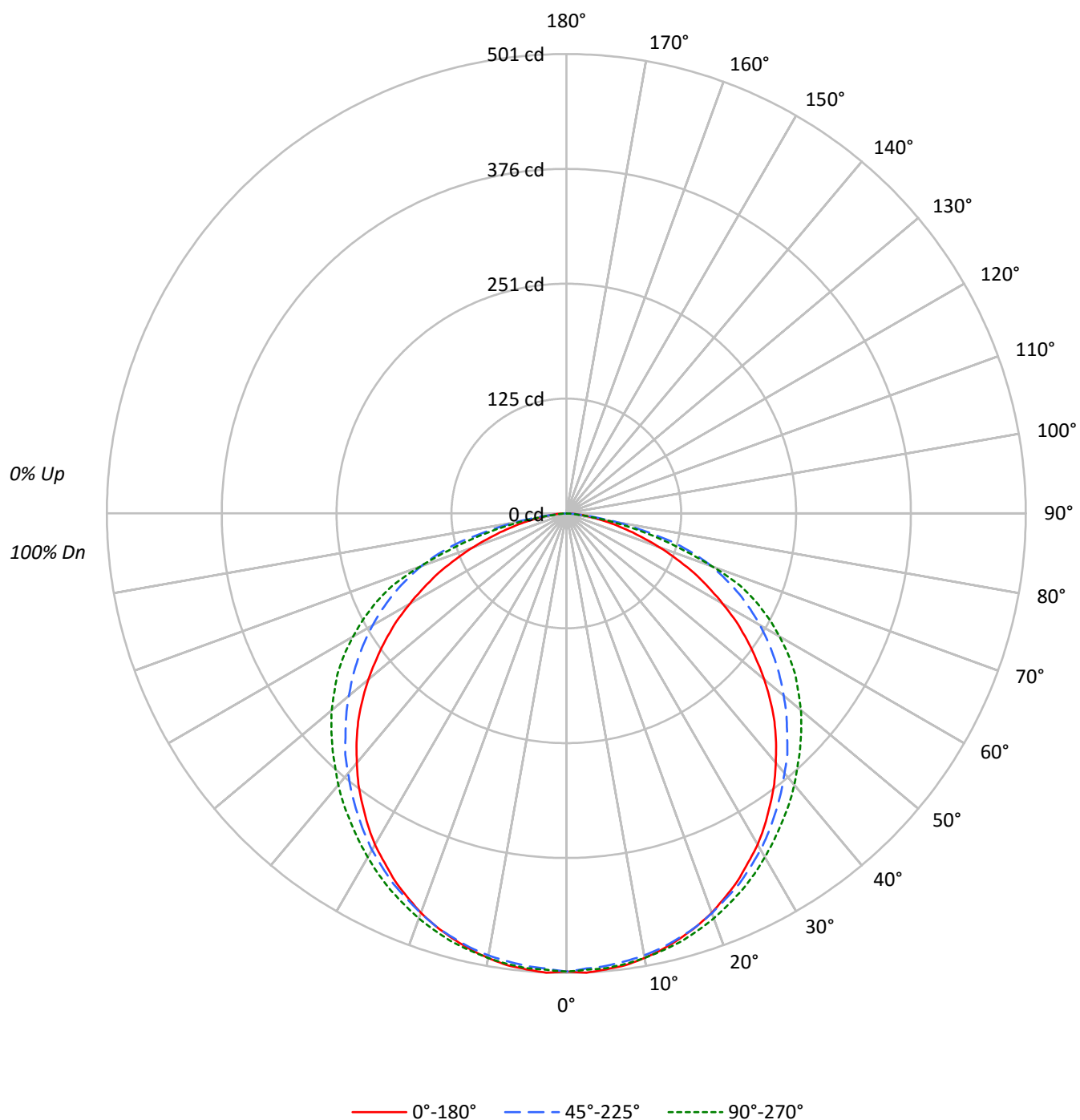
Input Watts (W): 17
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1344	1344	1344
5°	1348	1338	1344
10°	1345	1337	1345
15°	1336	1334	1347
20°	1327	1328	1346
25°	1313	1324	1346
30°	1296	1317	1345
35°	1273	1307	1348
40°	1248	1300	1358
45°	1222	1295	1373
50°	1179	1295	1398
55°	1128	1302	1428
60°	1060	1312	1446
65°	978	1325	1455
70°	851	1328	1339
75°	702	1236	1082
80°	552	890	724
85°	429	343	173



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.3	3.2
10°-20°	135.7	9.2
20°-30°	206.1	14.0
30°-40°	249.7	17.0
40°-50°	263.1	17.9
50°-60°	245.7	16.7
60°-70°	196.3	13.3
70°-80°	108.0	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°	389.1	26.5
0°-40°	638.8	43.4
0°-60°	1147.6	78.0
0°-90°	1471.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1471.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	500	500	500	500	500	
5°	499	498	495	499	498	47
15°	480	480	479	483	483	135
25°	442	443	446	452	453	204
35°	388	391	398	408	410	243
45°	321	327	340	356	361	247
55°	240	253	278	297	304	215
65°	154	173	208	225	228	151
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°	499.6	499.6	499.6	499.6	499.6
2.5°	501.4	500.0	496.8	499.6	498.2
5°	499.1	497.7	495.4	498.6	497.7
7.5°	496.8	494.9	492.6	496.3	495.4
10°	492.2	490.8	489.4	492.6	492.2
12.5°	486.6	486.1	484.8	488.5	488.0
15°	479.7	479.7	478.7	483.4	483.4
17.5°	472.3	471.8	472.3	477.4	476.9
20°	463.5	463.5	463.9	470.0	470.0
22.5°	452.8	453.3	454.7	462.1	461.6
25°	442.2	443.1	445.9	452.4	453.3
27.5°	429.3	431.6	434.8	442.7	443.6
30°	417.2	418.6	423.7	431.1	433.0
32.5°	402.9	405.7	411.2	419.5	421.8
35°	387.6	391.3	397.8	408.0	410.3
37.5°	372.4	375.6	384.4	395.0	399.2
40°	355.2	360.8	370.0	382.1	386.7
42.5°	338.6	344.1	356.6	369.1	373.3
45°	321.0	327.0	340.4	355.7	360.8
47.5°	301.6	308.5	325.6	341.8	347.4
50°	281.7	290.5	309.4	327.5	334.0
52.5°	260.9	272.0	293.7	312.7	318.7
55°	240.5	252.6	277.5	297.0	304.4
57.5°	219.7	232.7	260.9	283.1	287.2
60°	197.0	212.8	243.8	263.2	268.7
62.5°	174.8	192.9	226.2	244.7	249.3
65°	153.6	173.0	208.1	225.3	228.5
67.5°	130.4	153.6	188.3	204.0	204.9
70°	108.2	135.1	168.8	176.2	170.2
72.5°	86.5	115.2	146.2	140.2	135.1
75°	67.5	96.7	118.9	106.9	104.1
77.5°	50.0	79.1	85.1	78.6	73.5
80°	35.6	62.4	57.4	49.0	46.7
82.5°	24.5	39.3	31.5	24.5	21.3
85°	13.9	17.6	11.1	6.9	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)