

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: P308371

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-RDP-CP250-W2A-U-5000K**

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: P308371
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-20HE-UNV-L82765-RDP-CP250-W2A-U-5000K
Description: 2'X2' 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: 1244.0 lumens
Efficiency: N/A
Efficacy: 72.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

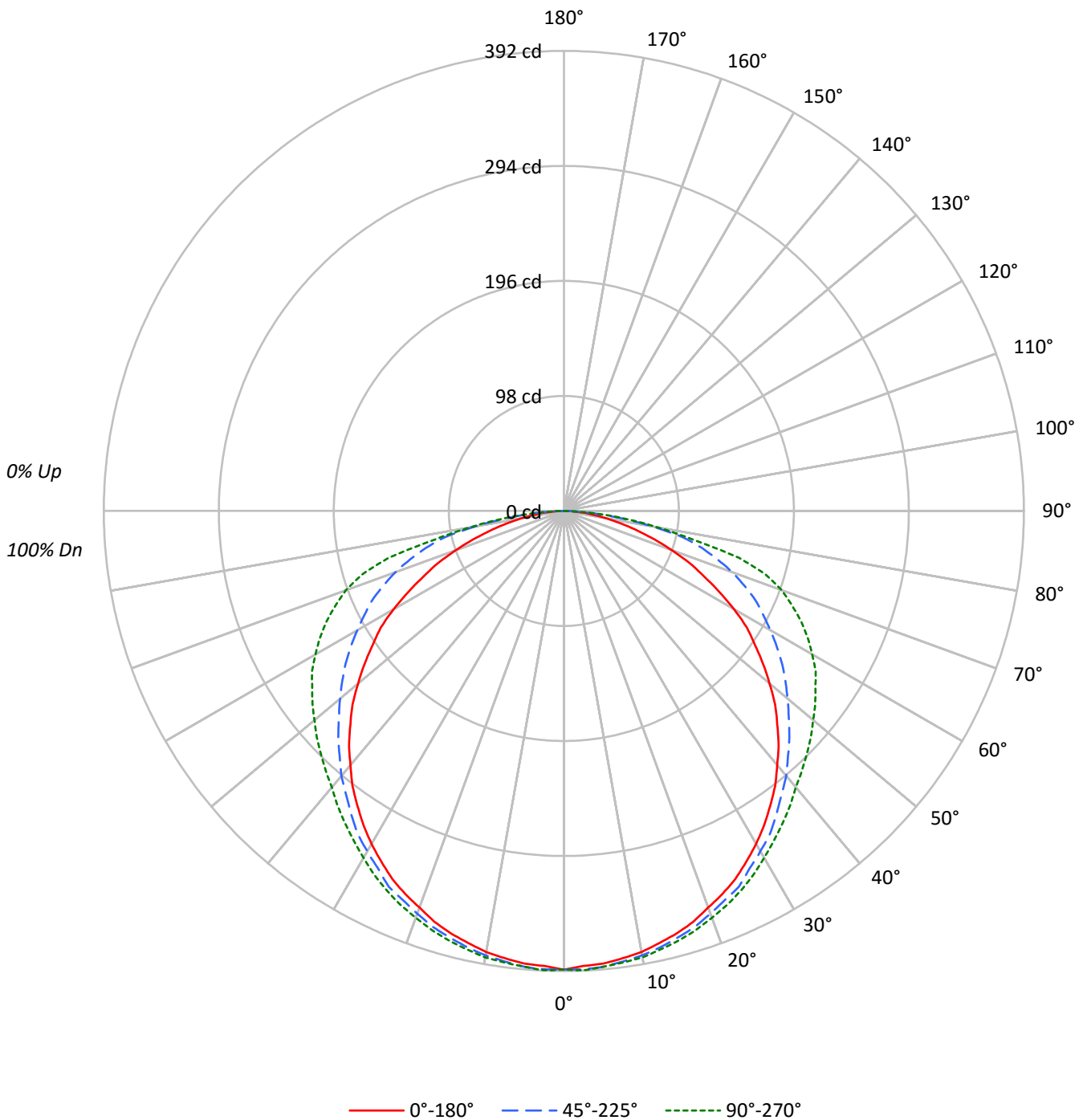
Input Watts (W): 17.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1052	1052	1052
5°	1046	1053	1053
10°	1043	1050	1055
15°	1038	1048	1056
20°	1030	1046	1056
25°	1027	1049	1060
30°	1018	1041	1061
35°	1007	1037	1067
40°	993	1035	1080
45°	979	1034	1114
50°	958	1042	1161
55°	932	1065	1228
60°	901	1094	1315
65°	839	1148	1422
70°	770	1202	1555
75°	676	1265	1608
80°	581	1206	1261
85°	509	877	960



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.0	3.0
10°-20°	106.1	8.5
20°-30°	161.9	13.0
30°-40°	197.7	15.9
40°-50°	211.4	17.0
50°-60°	204.0	16.4
60°-70°	175.7	14.1
70°-80°	118.8	9.6
80°-90°	31.4	2.5
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°	305.0	24.5
0°-40°	502.7	40.4
0°-60°	918.2	73.8
0°-90°	1244.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1244.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	391	391	391	391	391	
5°	387	388	390	390	390	37
15°	372	373	376	378	379	105
25°	346	348	353	355	357	159
35°	307	309	316	322	325	192
45°	257	262	272	286	293	199
55°	199	205	227	250	262	178
65°	132	145	180	209	223	131
75°	65	86	122	146	155	70
85°	16	23	28	29	31	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	390.8	390.8	390.8	390.8	390.8
2.5°	388.0	388.9	390.8	390.8	391.7
5°	387.1	388.0	389.8	389.8	389.8
7.5°	384.4	385.3	387.1	388.0	388.0
10°	381.6	382.5	384.4	385.3	386.2
12.5°	377.0	378.0	380.7	382.5	382.5
15°	372.5	373.4	376.1	378.0	378.9
17.5°	367.0	368.8	371.5	373.4	374.3
20°	359.6	361.5	365.1	367.9	368.8
22.5°	353.2	355.1	358.7	361.5	363.3
25°	345.9	347.8	353.2	355.1	356.9
27.5°	336.8	338.6	343.2	346.8	349.6
30°	327.6	329.4	334.9	339.5	341.3
32.5°	317.6	320.3	326.7	330.4	333.1
35°	306.6	309.3	315.7	322.1	324.9
37.5°	295.6	298.3	304.7	313.0	316.6
40°	282.8	286.4	294.7	305.7	307.5
42.5°	270.9	275.5	282.8	295.6	300.2
45°	257.2	261.7	271.8	285.5	292.8
47.5°	244.3	248.9	259.9	276.4	285.5
50°	228.8	235.2	248.9	268.1	277.3
52.5°	214.1	219.6	237.9	259.0	270.0
55°	198.6	205.0	227.0	249.8	261.7
57.5°	184.9	190.3	215.1	240.7	254.4
60°	167.5	174.8	203.2	230.6	244.3
62.5°	149.2	160.1	191.3	219.6	234.3
65°	131.8	144.6	180.3	208.7	223.3
67.5°	116.2	129.9	166.6	196.8	210.5
70°	97.9	115.3	152.8	182.1	197.7
72.5°	81.4	100.7	137.3	166.6	180.3
75°	65.0	86.0	121.7	146.4	154.7
77.5°	50.3	70.5	104.3	111.6	112.6
80°	37.5	55.8	77.8	78.7	81.4
82.5°	25.6	39.4	50.3	54.9	55.8
85°	16.5	22.9	28.4	29.3	31.1
87.5°	7.3	8.2	10.1	9.2	9.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)