

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: P308372

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-RDP-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: P308372
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-5500K
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: 1257.0 lumens
Efficiency: N/A
Efficacy: 73.1 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

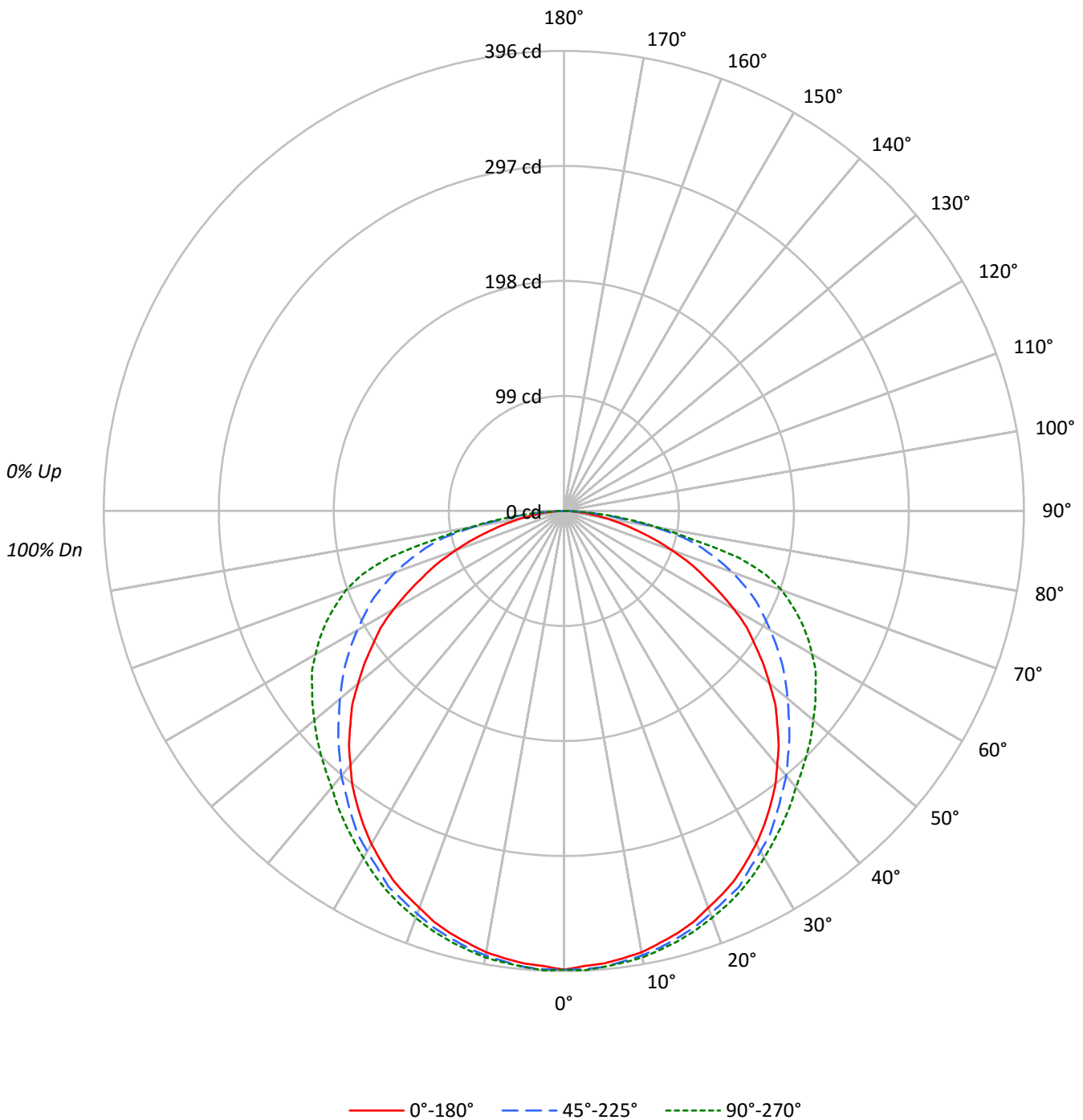
Input Watts (W): 17.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1062	1062	1062
5°	1056	1064	1064
10°	1054	1061	1066
15°	1049	1059	1066
20°	1041	1057	1067
25°	1038	1060	1071
30°	1029	1052	1072
35°	1018	1048	1078
40°	1004	1046	1091
45°	989	1045	1126
50°	968	1053	1173
55°	942	1076	1241
60°	911	1105	1329
65°	848	1160	1436
70°	778	1215	1571
75°	683	1279	1625
80°	587	1218	1275
85°	513	886	969



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.3	3.0
10°-20°	107.2	8.5
20°-30°	163.6	13.0
30°-40°	199.8	15.9
40°-50°	213.6	17.0
50°-60°	206.2	16.4
60°-70°	177.5	14.1
70°-80°	120.1	9.6
80°-90°	31.7	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°	308.2	24.5
0°-40°	508.0	40.4
0°-60°	927.7	73.8
0°-90°	1257.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1257.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	395	395	395	395	395	
5°	391	392	394	394	394	37
15°	376	377	380	382	383	106
25°	350	351	357	359	361	161
35°	310	312	319	326	328	194
45°	260	264	275	288	296	201
55°	201	207	229	252	264	180
65°	133	146	182	211	226	132
75°	66	87	123	148	156	70
85°	17	23	29	30	31	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	394.8	394.8	394.8	394.8	394.8
2.5°	392.1	393.0	394.8	394.8	395.8
5°	391.1	392.1	393.9	393.9	393.9
7.5°	388.4	389.3	391.1	392.1	392.1
10°	385.6	386.5	388.4	389.3	390.2
12.5°	381.0	381.9	384.7	386.5	386.5
15°	376.4	377.3	380.1	381.9	382.8
17.5°	370.8	372.7	375.4	377.3	378.2
20°	363.4	365.3	369.0	371.7	372.7
22.5°	356.9	358.8	362.5	365.3	367.1
25°	349.5	351.4	356.9	358.8	360.6
27.5°	340.3	342.1	346.8	350.5	353.2
30°	331.0	332.9	338.4	343.1	344.9
32.5°	320.9	323.6	330.1	333.8	336.6
35°	309.8	312.5	319.0	325.5	328.3
37.5°	298.7	301.5	307.9	316.2	319.9
40°	285.7	289.4	297.8	308.8	310.7
42.5°	273.7	278.3	285.7	298.7	303.3
45°	259.8	264.5	274.6	288.5	295.9
47.5°	246.9	251.5	262.6	279.3	288.5
50°	231.2	237.6	251.5	270.9	280.2
52.5°	216.4	221.9	240.4	261.7	272.8
55°	200.7	207.1	229.3	252.4	264.5
57.5°	186.8	192.3	217.3	243.2	257.1
60°	169.2	176.6	205.3	233.0	246.9
62.5°	150.7	161.8	193.3	221.9	236.7
65°	133.2	146.1	182.2	210.8	225.6
67.5°	117.4	131.3	168.3	198.8	212.7
70°	98.9	116.5	154.4	184.0	199.7
72.5°	82.3	101.7	138.7	168.3	182.2
75°	65.7	86.9	123.0	148.0	156.3
77.5°	50.9	71.2	105.4	112.8	113.7
80°	37.9	56.4	78.6	79.5	82.3
82.5°	25.9	39.8	50.9	55.5	56.4
85°	16.6	23.1	28.7	29.6	31.4
87.5°	7.4	8.3	10.2	9.2	9.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)