

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: P308393

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-RDP-CP125-W2A-U-2700K**

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: P308393
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: 22FCZ2-24HE-UNV-L82765-RDP-CP125-W2A-U-2700K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" 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: 1317.0 lumens
Efficiency: N/A
Efficacy: 69.7 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

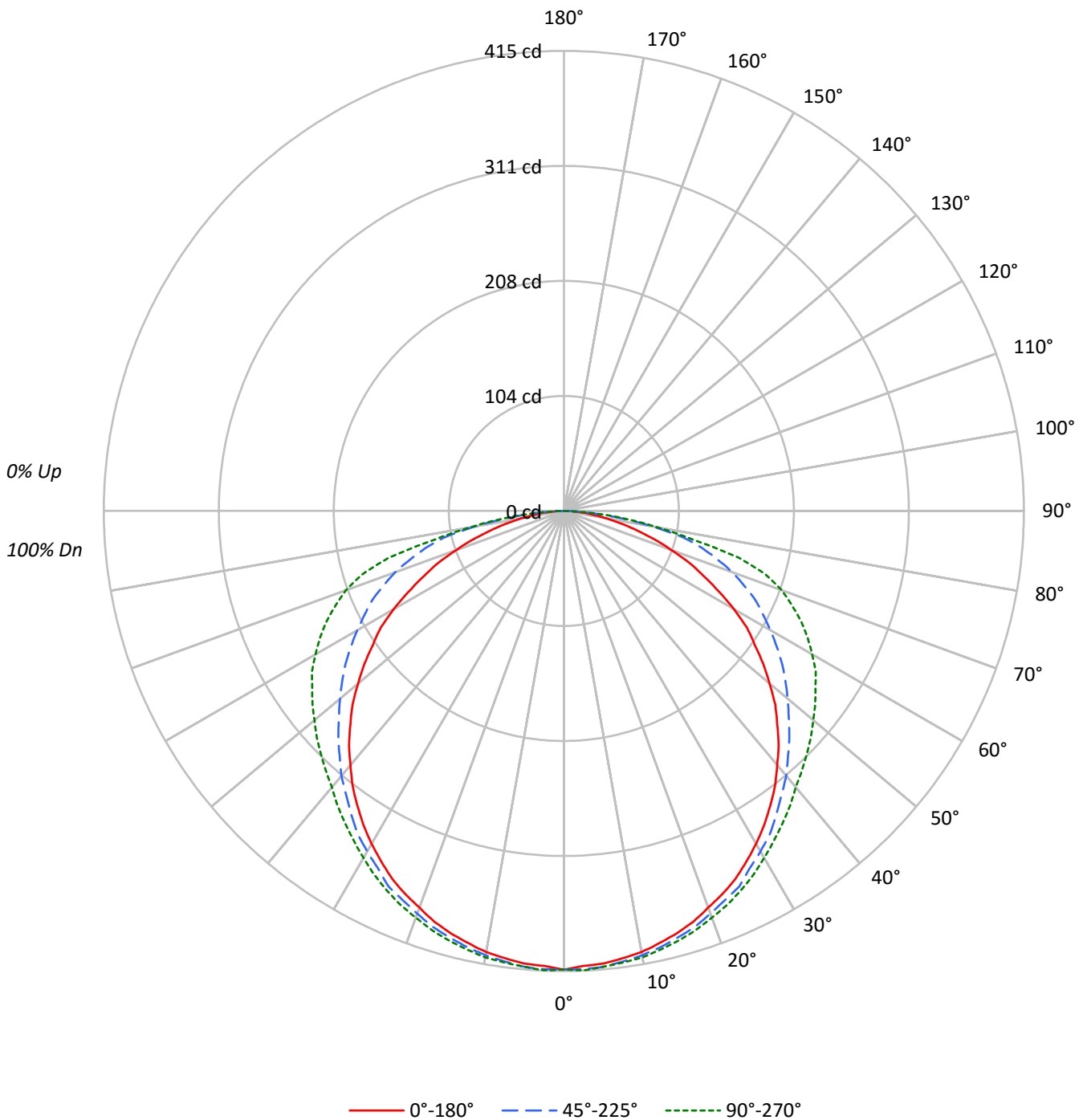
Input Watts (W): 18.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1113	1113	1113
5°	1107	1115	1115
10°	1104	1112	1117
15°	1098	1109	1117
20°	1090	1107	1118
25°	1087	1110	1122
30°	1078	1102	1123
35°	1066	1098	1130
40°	1052	1096	1143
45°	1036	1095	1180
50°	1014	1103	1229
55°	986	1127	1300
60°	954	1158	1392
65°	888	1216	1505
70°	816	1273	1647
75°	715	1340	1702
80°	615	1277	1336
85°	537	926	1016



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.1	3.0
10°-20°	112.4	8.5
20°-30°	171.4	13.0
30°-40°	209.3	15.9
40°-50°	223.8	17.0
50°-60°	216.0	16.4
60°-70°	185.9	14.1
70°-80°	125.8	9.6
80°-90°	33.2	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°	322.9	24.5
0°-40°	532.2	40.4
0°-60°	972.0	73.8
0°-90°	1317.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1317.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	414	414	414	414	414	
5°	410	411	413	413	413	39
15°	394	395	398	400	401	111
25°	366	368	374	376	378	169
35°	325	328	334	341	344	203
45°	272	277	288	302	310	210
55°	210	217	240	264	277	188
65°	140	153	191	221	236	139
75°	69	91	129	155	164	74
85°	17	24	30	31	33	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	413.7	413.7	413.7	413.7	413.7
2.5°	410.8	411.8	413.7	413.7	414.7
5°	409.8	410.8	412.7	412.7	412.7
7.5°	406.9	407.9	409.8	410.8	410.8
10°	404.0	405.0	406.9	407.9	408.8
12.5°	399.2	400.1	403.0	405.0	405.0
15°	394.3	395.3	398.2	400.1	401.1
17.5°	388.5	390.4	393.3	395.3	396.3
20°	380.8	382.7	386.6	389.5	390.4
22.5°	374.0	375.9	379.8	382.7	384.6
25°	366.2	368.2	374.0	375.9	377.8
27.5°	356.5	358.5	363.3	367.2	370.1
30°	346.8	348.8	354.6	359.4	361.4
32.5°	336.2	339.1	345.9	349.7	352.7
35°	324.6	327.5	334.2	341.0	343.9
37.5°	312.9	315.8	322.6	331.3	335.2
40°	299.4	303.2	312.0	323.6	325.5
42.5°	286.8	291.6	299.4	312.9	317.8
45°	272.2	277.1	287.7	302.3	310.0
47.5°	258.7	263.5	275.1	292.6	302.3
50°	242.2	249.0	263.5	283.9	293.6
52.5°	226.7	232.5	251.9	274.2	285.8
55°	210.2	217.0	240.3	264.5	277.1
57.5°	195.7	201.5	227.7	254.8	269.3
60°	177.3	185.0	215.1	244.1	258.7
62.5°	157.9	169.5	202.5	232.5	248.0
65°	139.5	153.1	190.9	220.9	236.4
67.5°	123.0	137.6	176.3	208.3	222.8
70°	103.7	122.1	161.8	192.8	209.3
72.5°	86.2	106.6	145.3	176.3	190.9
75°	68.8	91.1	128.9	155.0	163.7
77.5°	53.3	74.6	110.4	118.2	119.2
80°	39.7	59.1	82.4	83.3	86.2
82.5°	27.1	41.7	53.3	58.1	59.1
85°	17.4	24.2	30.0	31.0	32.9
87.5°	7.8	8.7	10.7	9.7	9.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)