

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: P308385

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-RDP-CA125-W2A-U-3000K**

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: P308385
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-CA125-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC 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: 1382.0 lumens
Efficiency: N/A
Efficacy: 73.5 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

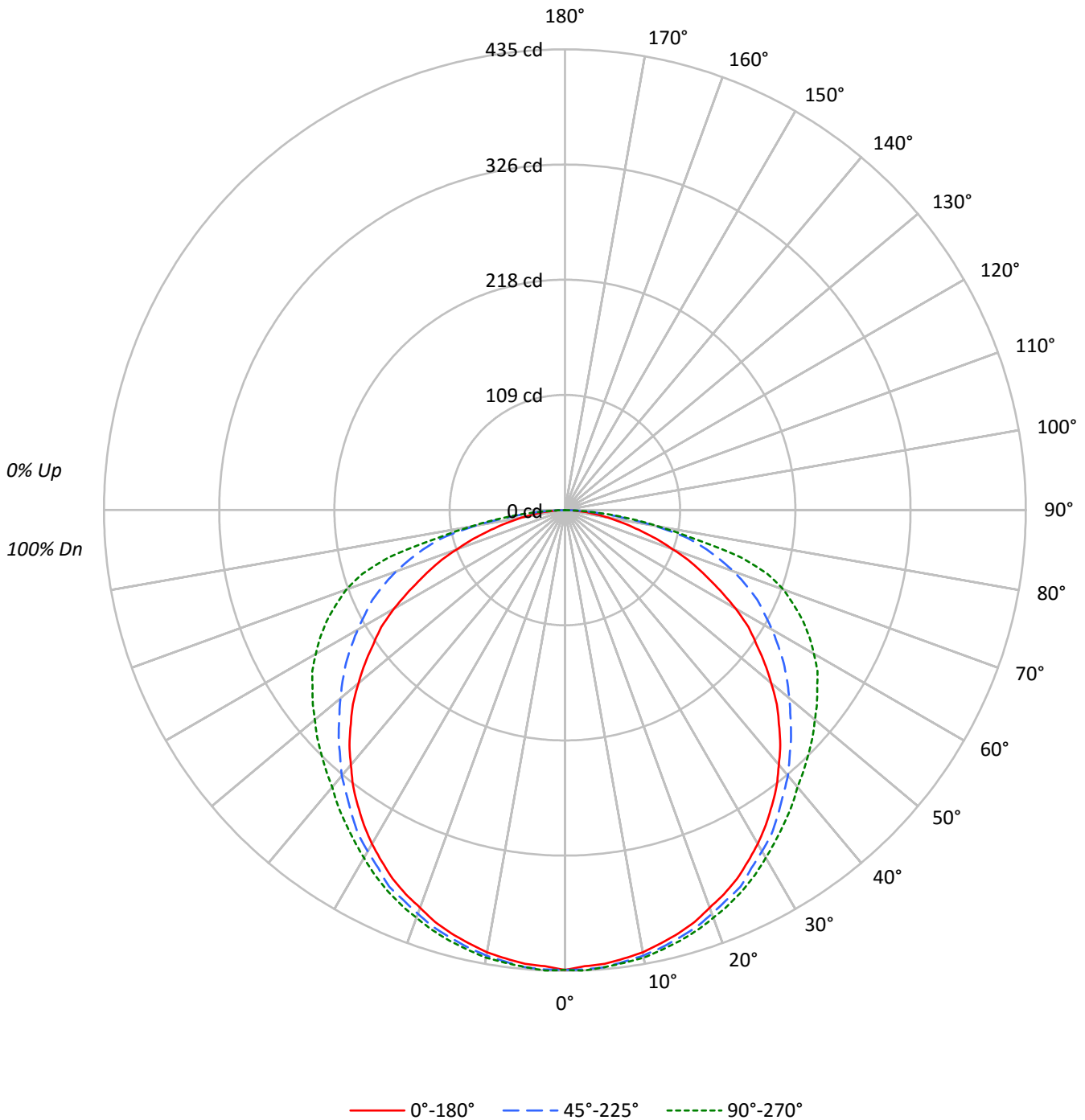
Input Watts (W): 18.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1168	1168	1168
5°	1162	1170	1170
10°	1158	1167	1172
15°	1153	1164	1173
20°	1144	1162	1173
25°	1141	1165	1177
30°	1131	1156	1178
35°	1119	1152	1186
40°	1103	1150	1200
45°	1087	1149	1238
50°	1064	1158	1289
55°	1035	1183	1364
60°	1001	1215	1461
65°	932	1275	1580
70°	856	1336	1728
75°	751	1406	1786
80°	646	1339	1402
85°	565	973	1068



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.1	3.0
10°-20°	117.9	8.5
20°-30°	179.9	13.0
30°-40°	219.6	15.9
40°-50°	234.8	17.0
50°-60°	226.7	16.4
60°-70°	195.1	14.1
70°-80°	132.0	9.6
80°-90°	34.8	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°	338.9	24.5
0°-40°	558.5	40.4
0°-60°	1020.0	73.8
0°-90°	1382.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1382.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	434	434	434	434	434	
5°	430	431	433	433	433	41
15°	414	415	418	420	421	117
25°	384	386	392	394	396	177
35°	341	344	351	358	361	213
45°	286	291	302	317	325	221
55°	221	228	252	278	291	198
65°	146	161	200	232	248	146
75°	72	96	135	163	172	77
85°	18	25	32	32	35	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	434.1	434.1	434.1	434.1	434.1
2.5°	431.1	432.1	434.1	434.1	435.1
5°	430.0	431.1	433.1	433.1	433.1
7.5°	427.0	428.0	430.0	431.1	431.1
10°	423.9	425.0	427.0	428.0	429.0
12.5°	418.9	419.9	422.9	425.0	425.0
15°	413.8	414.8	417.8	419.9	420.9
17.5°	407.7	409.7	412.8	414.8	415.8
20°	399.5	401.6	405.6	408.7	409.7
22.5°	392.4	394.5	398.5	401.6	403.6
25°	384.3	386.3	392.4	394.5	396.5
27.5°	374.1	376.2	381.2	385.3	388.4
30°	364.0	366.0	372.1	377.2	379.2
32.5°	352.8	355.8	362.9	367.0	370.1
35°	340.6	343.6	350.7	357.9	360.9
37.5°	328.4	331.4	338.5	347.7	351.8
40°	314.1	318.2	327.4	339.6	341.6
42.5°	300.9	306.0	314.1	328.4	333.5
45°	285.7	290.8	301.9	317.2	325.3
47.5°	271.4	276.5	288.7	307.0	317.2
50°	254.2	261.3	276.5	297.9	308.0
52.5°	237.9	244.0	264.3	287.7	299.9
55°	220.6	227.7	252.1	277.5	290.8
57.5°	205.4	211.5	238.9	267.4	282.6
60°	186.0	194.2	225.7	256.2	271.4
62.5°	165.7	177.9	212.5	244.0	260.3
65°	146.4	160.6	200.3	231.8	248.1
67.5°	129.1	144.4	185.0	218.6	233.8
70°	108.8	128.1	169.8	202.3	219.6
72.5°	90.5	111.8	152.5	185.0	200.3
75°	72.2	95.6	135.2	162.7	171.8
77.5°	55.9	78.3	115.9	124.0	125.0
80°	41.7	62.0	86.4	87.4	90.5
82.5°	28.5	43.7	55.9	61.0	62.0
85°	18.3	25.4	31.5	32.5	34.6
87.5°	8.1	9.1	11.2	10.2	10.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)