

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: P308401

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-RDP-CP125-W2A-U-6500K**

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: P308401
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-6500K
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: 1500.0 lumens
Efficiency: N/A
Efficacy: 76.1 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

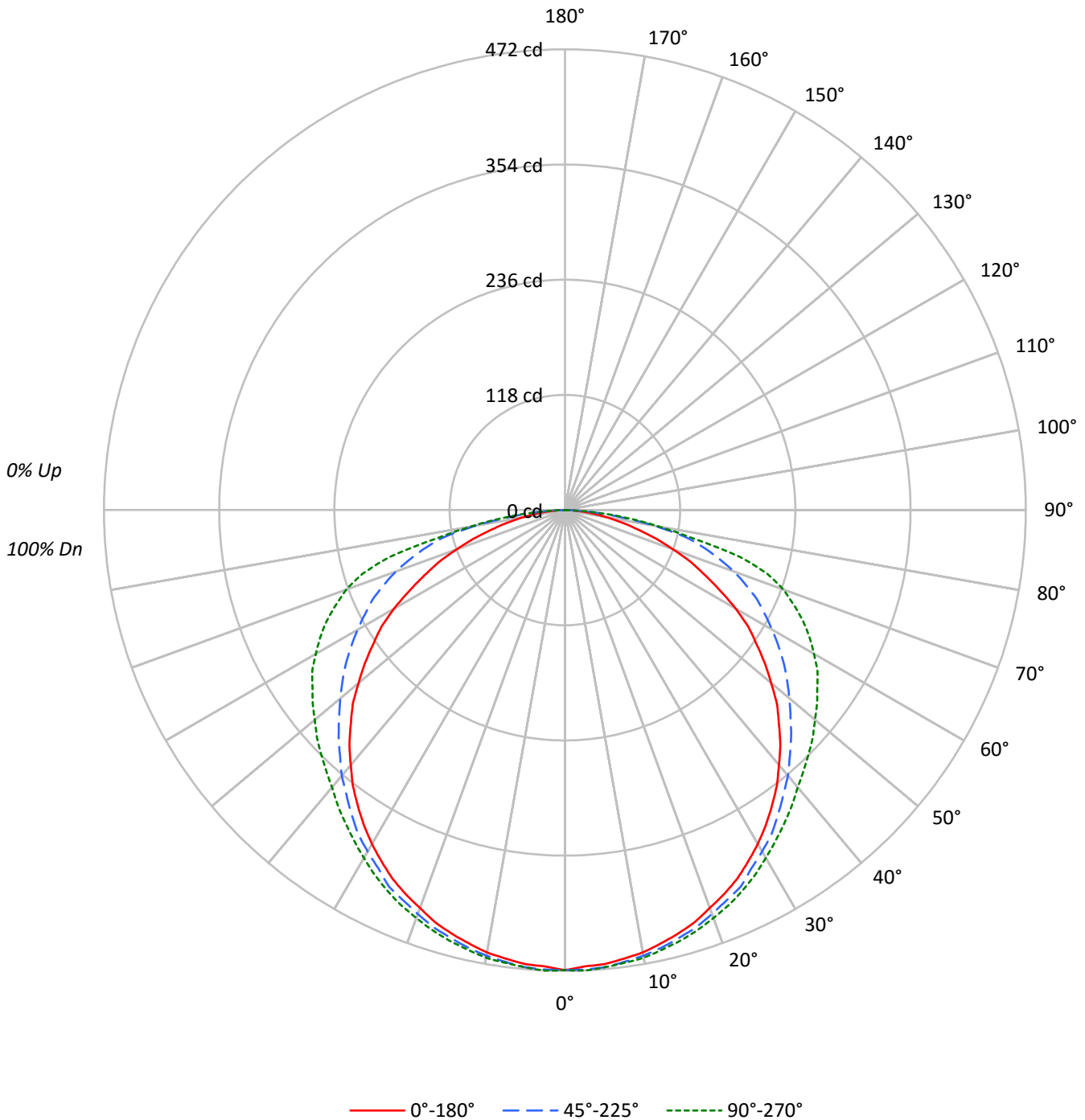
Input Watts (W): 19.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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°	1268	1268	1268
5°	1261	1270	1270
10°	1257	1267	1273
15°	1251	1263	1273
20°	1242	1261	1273
25°	1238	1265	1278
30°	1227	1255	1279
35°	1214	1251	1287
40°	1198	1248	1303
45°	1180	1247	1344
50°	1155	1256	1400
55°	1124	1284	1481
60°	1087	1319	1586
65°	1012	1384	1714
70°	929	1450	1875
75°	814	1526	1939
80°	700	1454	1522
85°	614	1056	1158



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.6	3.0
10°-20°	128.0	8.5
20°-30°	195.2	13.0
30°-40°	238.4	15.9
40°-50°	254.9	17.0
50°-60°	246.0	16.4
60°-70°	211.8	14.1
70°-80°	143.3	9.6
80°-90°	37.8	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°	367.8	24.5
0°-40°	606.2	40.4
0°-60°	1107.1	73.8
0°-90°	1500.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1500.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	471	471	471	471	471	
5°	467	468	470	470	470	44
15°	449	450	454	456	457	127
25°	417	419	426	428	430	192
35°	370	373	381	388	392	231
45°	310	316	328	344	353	239
55°	240	247	274	301	316	215
65°	159	174	217	252	269	158
75°	78	104	147	177	186	84
85°	20	28	34	35	38	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	471.2	471.2	471.2	471.2	471.2
2.5°	467.9	469.0	471.2	471.2	472.3
5°	466.8	467.9	470.1	470.1	470.1
7.5°	463.5	464.6	466.8	467.9	467.9
10°	460.1	461.2	463.5	464.6	465.7
12.5°	454.6	455.7	459.0	461.2	461.2
15°	449.1	450.2	453.5	455.7	456.8
17.5°	442.5	444.7	448.0	450.2	451.3
20°	433.7	435.9	440.3	443.6	444.7
22.5°	425.9	428.1	432.6	435.9	438.1
25°	417.1	419.3	425.9	428.1	430.3
27.5°	406.1	408.3	413.8	418.2	421.5
30°	395.0	397.2	403.9	409.4	411.6
32.5°	382.9	386.2	393.9	398.3	401.7
35°	369.7	373.0	380.7	388.4	391.7
37.5°	356.4	359.7	367.5	377.4	381.8
40°	341.0	345.4	355.3	368.6	370.8
42.5°	326.6	332.1	341.0	356.4	361.9
45°	310.1	315.6	327.7	344.3	353.1
47.5°	294.6	300.1	313.4	333.2	344.3
50°	275.9	283.6	300.1	323.3	334.3
52.5°	258.2	264.8	286.9	312.3	325.5
55°	239.5	247.2	273.7	301.2	315.6
57.5°	222.9	229.5	259.3	290.2	306.8
60°	201.9	210.8	245.0	278.1	294.6
62.5°	179.9	193.1	230.6	264.8	282.5
65°	158.9	174.3	217.4	251.6	269.2
67.5°	140.1	156.7	200.8	237.2	253.8
70°	118.1	139.0	184.3	219.6	238.3
72.5°	98.2	121.4	165.5	200.8	217.4
75°	78.3	103.7	146.8	176.6	186.5
77.5°	60.7	85.0	125.8	134.6	135.7
80°	45.2	67.3	93.8	94.9	98.2
82.5°	30.9	47.4	60.7	66.2	67.3
85°	19.9	27.6	34.2	35.3	37.5
87.5°	8.8	9.9	12.1	11.0	11.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)