

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: P308122

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-HRP-CA125-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: P308122
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
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-HRP-CA125-W2A-U-6500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 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: 1776.0 lumens
Efficiency: N/A
Efficacy: 90.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

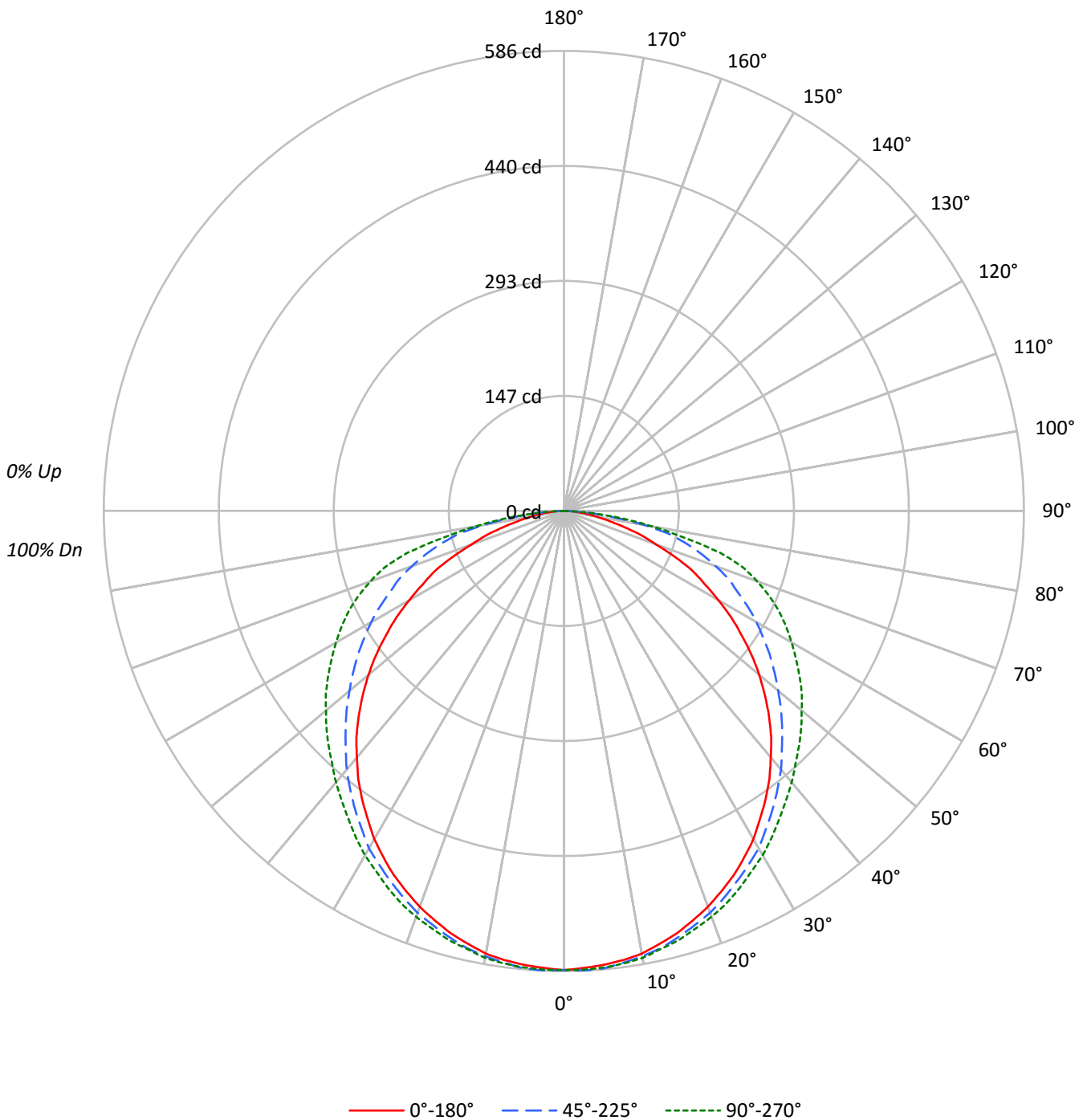
Input Watts (W): 19.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1574	1574	1574
5°	1568	1580	1577
10°	1564	1574	1580
15°	1551	1567	1576
20°	1537	1559	1575
25°	1520	1547	1573
30°	1501	1542	1574
35°	1472	1524	1572
40°	1440	1511	1586
45°	1407	1496	1612
50°	1360	1492	1656
55°	1298	1503	1719
60°	1224	1525	1803
65°	1156	1555	1926
70°	987	1622	2063
75°	827	1688	2143
80°	677	1632	1788
85°	587	1210	1315



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.4	3.1
10°-20°	158.5	8.9
20°-30°	240.3	13.5
30°-40°	290.1	16.3
40°-50°	304.9	17.2
50°-60°	286.8	16.2
60°-70°	239.2	13.5
70°-80°	158.5	8.9
80°-90°	42.2	2.4
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°	454.3	25.6
0°-40°	744.4	41.9
0°-60°	1336.1	75.2
0°-90°	1776.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1776.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	585	585	585	585	585	
5°	580	582	585	585	584	55
15°	557	559	562	565	566	157
25°	512	515	521	528	530	236
35°	448	453	464	474	478	280
45°	370	375	393	413	424	285
55°	277	289	320	353	366	248
65°	182	197	244	285	302	177
75°	80	111	162	196	206	86
85°	19	29	39	43	43	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	584.8	584.8	584.8	584.8	584.8
2.5°	582.6	583.7	585.9	585.9	584.8
5°	580.3	581.5	584.8	584.8	583.7
7.5°	577.0	578.1	580.3	582.6	581.5
10°	572.5	573.6	575.9	578.1	578.1
12.5°	564.7	565.8	570.3	571.4	571.4
15°	556.8	559.0	562.4	564.7	565.8
17.5°	546.7	549.0	553.4	557.9	557.9
20°	536.6	538.9	544.5	549.0	550.1
22.5°	524.3	527.7	533.3	538.9	541.1
25°	512.0	515.4	521.0	527.7	529.9
27.5°	497.4	500.8	508.6	516.5	517.6
30°	482.9	486.2	496.3	503.0	506.4
32.5°	464.9	469.4	479.5	489.6	492.9
35°	448.1	452.6	463.8	473.9	478.4
37.5°	430.2	434.7	447.0	459.3	464.9
40°	410.0	415.6	430.2	443.7	451.5
42.5°	391.0	396.6	411.2	429.1	436.9
45°	369.7	375.3	393.2	413.4	423.5
47.5°	347.3	354.0	375.3	400.0	410.0
50°	324.9	332.7	356.3	384.3	395.5
52.5°	301.4	311.5	338.3	368.6	382.0
55°	276.7	289.0	320.4	352.9	366.4
57.5°	253.2	264.4	301.4	336.1	350.7
60°	227.4	242.0	283.4	319.3	335.0
62.5°	202.8	218.5	264.4	302.5	319.3
65°	181.5	197.2	244.2	284.6	302.5
67.5°	153.5	174.8	227.4	265.5	283.4
70°	125.5	154.6	206.1	245.4	262.2
72.5°	104.2	132.2	184.9	224.1	239.8
75°	79.5	110.9	162.4	196.1	206.1
77.5°	59.4	91.9	138.9	155.7	156.8
80°	43.7	70.6	105.3	110.9	115.4
82.5°	30.2	49.3	68.3	75.1	77.3
85°	19.0	29.1	39.2	42.6	42.6
87.5°	10.1	11.2	13.4	13.4	13.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)