

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: P308119

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-HRP-CA125-W2A-U-5000K**

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: P308119
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-5000K
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: 1749.0 lumens
Efficiency: N/A
Efficacy: 90.6 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

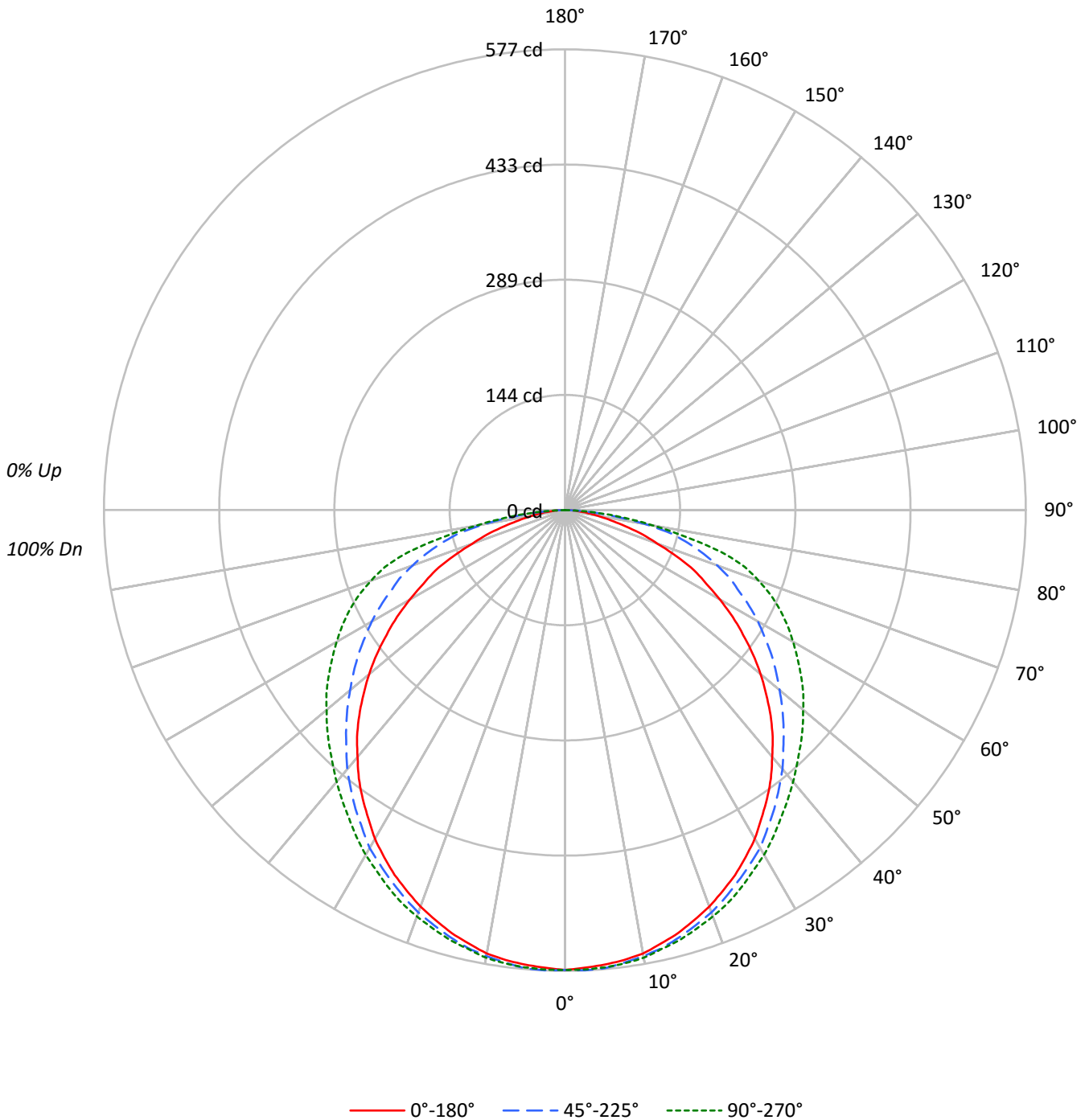
Input Watts (W): 19.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1550	1550	1550
5°	1544	1556	1553
10°	1541	1550	1556
15°	1528	1543	1552
20°	1513	1536	1551
25°	1497	1523	1550
30°	1478	1519	1550
35°	1450	1501	1548
40°	1418	1488	1562
45°	1386	1474	1587
50°	1340	1469	1631
55°	1278	1480	1693
60°	1206	1502	1776
65°	1138	1531	1897
70°	972	1597	2031
75°	814	1664	2111
80°	666	1607	1760
85°	580	1192	1294



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.6	3.1
10°-20°	156.1	8.9
20°-30°	236.6	13.5
30°-40°	285.7	16.3
40°-50°	300.2	17.2
50°-60°	282.5	16.2
60°-70°	235.5	13.5
70°-80°	156.1	8.9
80°-90°	41.6	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°	447.3	25.6
0°-40°	733.1	41.9
0°-60°	1315.8	75.2
0°-90°	1749.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1749.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	576	576	576	576	576	
5°	572	573	576	576	575	54
15°	548	550	554	556	557	155
25°	504	508	513	520	522	232
35°	441	446	457	467	471	276
45°	364	370	387	407	417	280
55°	272	285	316	348	361	244
65°	179	194	240	280	298	174
75°	78	109	160	193	203	85
85°	19	29	39	42	42	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	575.9	575.9	575.9	575.9	575.9
2.5°	573.7	574.8	577.0	577.0	575.9
5°	571.5	572.6	575.9	575.9	574.8
7.5°	568.2	569.3	571.5	573.7	572.6
10°	563.8	564.9	567.1	569.3	569.3
12.5°	556.1	557.2	561.6	562.7	562.7
15°	548.3	550.5	553.9	556.1	557.2
17.5°	538.4	540.6	545.0	549.4	549.4
20°	528.5	530.7	536.2	540.6	541.7
22.5°	516.3	519.7	525.2	530.7	532.9
25°	504.2	507.5	513.0	519.7	521.9
27.5°	489.9	493.2	500.9	508.6	509.7
30°	475.5	478.8	488.8	495.4	498.7
32.5°	457.9	462.3	472.2	482.1	485.5
35°	441.3	445.7	456.8	466.7	471.1
37.5°	423.7	428.1	440.2	452.4	457.9
40°	403.8	409.3	423.7	436.9	444.6
42.5°	385.1	390.6	404.9	422.6	430.3
45°	364.1	369.6	387.3	407.1	417.0
47.5°	342.0	348.6	369.6	393.9	403.8
50°	320.0	327.7	350.9	378.4	389.5
52.5°	296.8	306.7	333.2	363.0	376.2
55°	272.5	284.7	315.5	347.5	360.8
57.5°	249.3	260.4	296.8	331.0	345.3
60°	224.0	238.3	279.1	314.4	329.9
62.5°	199.7	215.1	260.4	297.9	314.4
65°	178.7	194.2	240.5	280.2	297.9
67.5°	151.2	172.1	224.0	261.5	279.1
70°	123.6	152.3	203.0	241.6	258.2
72.5°	102.6	130.2	182.0	220.7	236.1
75°	78.3	109.2	160.0	193.1	203.0
77.5°	58.5	90.5	136.8	153.4	154.5
80°	43.0	69.5	103.7	109.2	113.6
82.5°	29.8	48.5	67.3	73.9	76.1
85°	18.8	28.7	38.6	41.9	41.9
87.5°	9.9	11.0	13.2	13.2	13.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)