

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: P308166

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-HRP-CA125-W2A-U-5700K**

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: P308166
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: 22FCZ2-29HE-UNV-L82765-HRP-CA125-W2A-U-5700K
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: 2071.0 lumens
Efficiency: N/A
Efficacy: 90.0 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

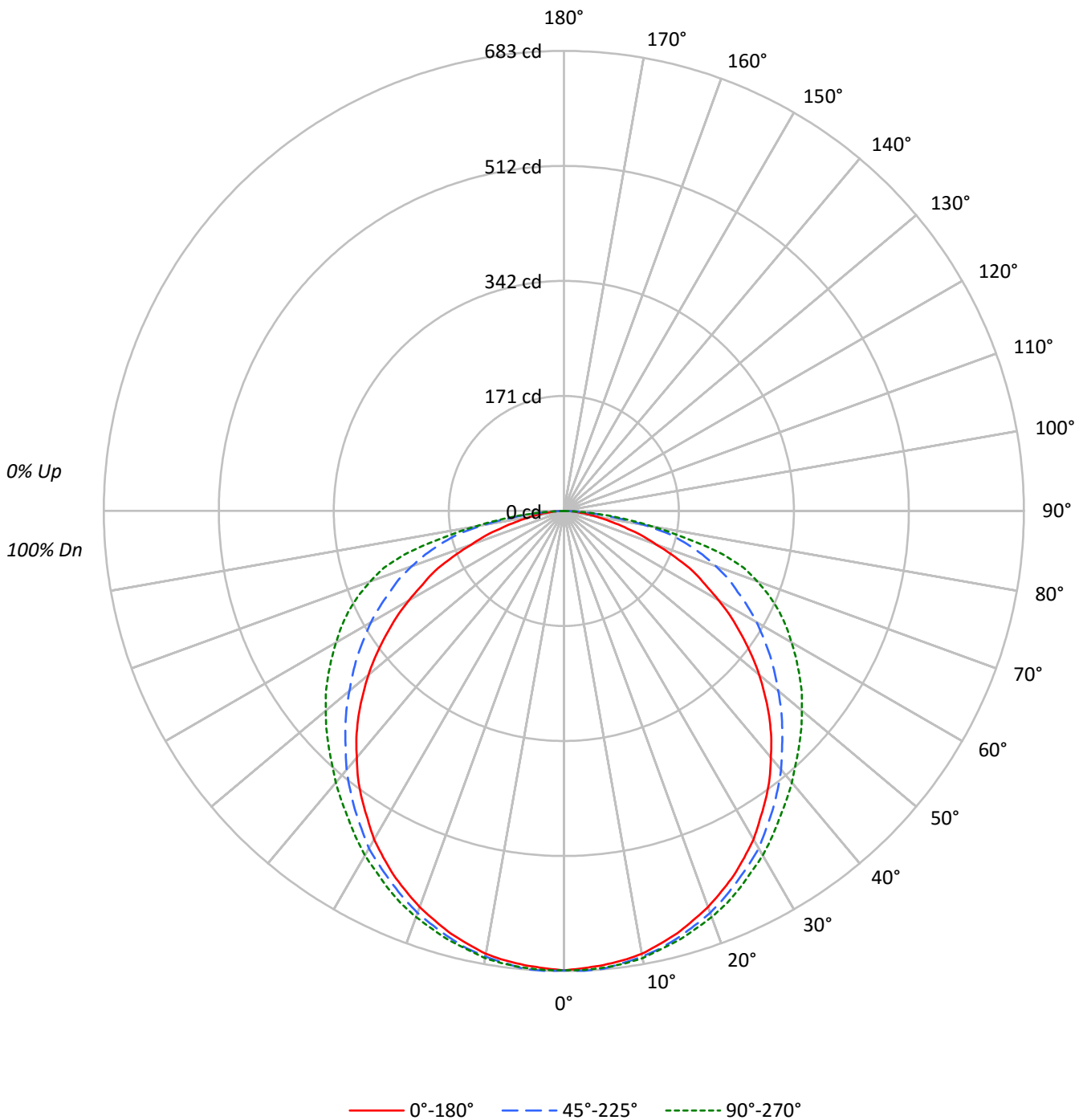
Input Watts (W): 23
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1835	1835	1835
5°	1828	1842	1839
10°	1824	1835	1842
15°	1809	1827	1838
20°	1792	1818	1837
25°	1773	1804	1835
30°	1750	1798	1835
35°	1717	1777	1832
40°	1680	1762	1850
45°	1641	1745	1879
50°	1586	1739	1931
55°	1514	1753	2004
60°	1427	1779	2102
65°	1347	1813	2246
70°	1151	1891	2405
75°	965	1969	2499
80°	790	1903	2086
85°	685	1411	1531



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.6	3.1
10°-20°	184.9	8.9
20°-30°	280.2	13.5
30°-40°	338.3	16.3
40°-50°	355.5	17.2
50°-60°	334.5	16.2
60°-70°	278.9	13.5
70°-80°	184.8	8.9
80°-90°	49.3	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°	529.7	25.6
0°-40°	868.0	41.9
0°-60°	1558.1	75.2
0°-90°	2071.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2071.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	682	682	682	682	682	
5°	677	678	682	682	681	64
15°	649	652	656	658	660	183
25°	597	601	608	615	618	275
35°	523	528	541	553	558	327
45°	431	438	459	482	494	332
55°	323	337	374	412	427	289
65°	212	230	285	332	353	206
75°	93	129	189	229	240	101
85°	22	34	46	50	50	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	682.0	682.0	682.0	682.0	682.0
2.5°	679.3	680.7	683.3	683.3	682.0
5°	676.7	678.0	682.0	682.0	680.7
7.5°	672.8	674.1	676.7	679.3	678.0
10°	667.6	668.9	671.5	674.1	674.1
12.5°	658.4	659.7	665.0	666.3	666.3
15°	649.3	651.9	655.8	658.4	659.7
17.5°	637.5	640.2	645.4	650.6	650.6
20°	625.8	628.4	634.9	640.2	641.5
22.5°	611.4	615.3	621.9	628.4	631.0
25°	597.0	601.0	607.5	615.3	617.9
27.5°	580.1	584.0	593.1	602.3	603.6
30°	563.1	567.0	578.7	586.6	590.5
32.5°	542.2	547.4	559.2	570.9	574.8
35°	522.6	527.8	540.9	552.6	557.8
37.5°	501.7	506.9	521.3	535.6	542.2
40°	478.2	484.7	501.7	517.3	526.5
42.5°	455.9	462.5	479.5	500.4	509.5
45°	431.1	437.7	458.6	482.1	493.8
47.5°	405.0	412.8	437.7	466.4	478.2
50°	378.9	388.0	415.4	448.1	461.2
52.5°	351.4	363.2	394.5	429.8	445.5
55°	322.7	337.1	373.6	411.5	427.2
57.5°	295.3	308.3	351.4	391.9	408.9
60°	265.2	282.2	330.5	372.3	390.6
62.5°	236.5	254.8	308.3	352.7	372.3
65°	211.6	229.9	284.8	331.8	352.7
67.5°	179.0	203.8	265.2	309.6	330.5
70°	146.3	180.3	240.4	286.1	305.7
72.5°	121.5	154.2	215.6	261.3	279.6
75°	92.8	129.3	189.4	228.6	240.4
77.5°	69.2	107.1	162.0	181.6	182.9
80°	51.0	82.3	122.8	129.3	134.6
82.5°	35.3	57.5	79.7	87.5	90.1
85°	22.2	34.0	45.7	49.6	49.6
87.5°	11.8	13.1	15.7	15.7	15.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)