

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: P308167

Luminaire Tested: **22FCZ2-29HE-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: P308167
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-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: 2077.0 lumens
Efficiency: N/A
Efficacy: 88.8 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

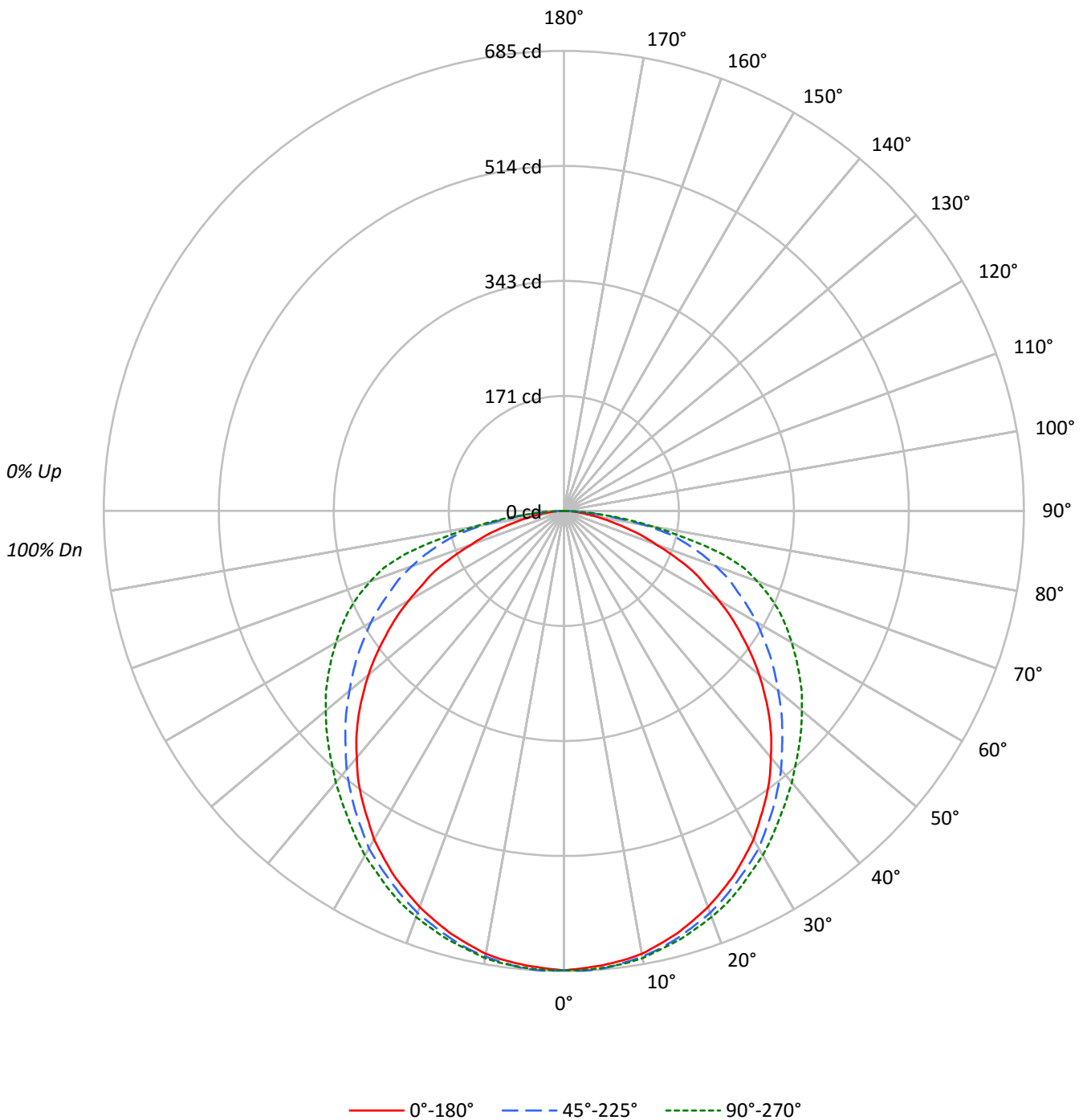
Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1840	1840	1840
5°	1833	1847	1844
10°	1829	1840	1847
15°	1814	1832	1843
20°	1797	1824	1842
25°	1778	1809	1840
30°	1755	1803	1840
35°	1722	1782	1838
40°	1684	1767	1855
45°	1646	1750	1885
50°	1591	1744	1936
55°	1518	1758	2010
60°	1432	1784	2109
65°	1352	1819	2253
70°	1154	1897	2412
75°	967	1975	2507
80°	792	1909	2092
85°	689	1417	1538



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.8	3.1
10°-20°	185.4	8.9
20°-30°	281.0	13.5
30°-40°	339.3	16.3
40°-50°	356.5	17.2
50°-60°	335.5	16.2
60°-70°	279.7	13.5
70°-80°	185.3	8.9
80°-90°	49.4	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°	531.2	25.6
0°-40°	870.6	41.9
0°-60°	1562.5	75.2
0°-90°	2077.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2077.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	684	684	684	684	684	
5°	679	680	684	684	683	65
15°	651	654	658	660	662	184
25°	599	603	609	617	620	276
35°	524	529	542	554	560	328
45°	432	439	460	484	495	333
55°	324	338	375	413	428	290
65°	212	231	286	333	354	207
75°	93	130	190	229	241	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°	683.9	683.9	683.9	683.9	683.9
2.5°	681.3	682.6	685.2	685.2	683.9
5°	678.7	680.0	683.9	683.9	682.6
7.5°	674.8	676.1	678.7	681.3	680.0
10°	669.5	670.8	673.5	676.1	676.1
12.5°	660.3	661.7	666.9	668.2	668.2
15°	651.2	653.8	657.7	660.3	661.7
17.5°	639.4	642.0	647.2	652.5	652.5
20°	627.6	630.2	636.8	642.0	643.3
22.5°	613.2	617.1	623.7	630.2	632.8
25°	598.8	602.7	609.3	617.1	619.7
27.5°	581.7	585.7	594.8	604.0	605.3
30°	564.7	568.6	580.4	588.3	592.2
32.5°	543.7	549.0	560.8	572.6	576.5
35°	524.1	529.3	542.4	554.2	559.5
37.5°	503.1	508.4	522.8	537.2	543.7
40°	479.5	486.1	503.1	518.8	528.0
42.5°	457.3	463.8	480.8	501.8	511.0
45°	432.4	438.9	459.9	483.5	495.3
47.5°	406.2	414.0	438.9	467.7	479.5
50°	380.0	389.1	416.6	449.4	462.5
52.5°	352.4	364.2	395.7	431.1	446.8
55°	323.6	338.0	374.7	412.7	428.4
57.5°	296.1	309.2	352.4	393.1	410.1
60°	266.0	283.0	331.5	373.4	391.8
62.5°	237.1	255.5	309.2	353.8	373.4
65°	212.3	230.6	285.6	332.8	353.8
67.5°	179.5	204.4	266.0	310.5	331.5
70°	146.7	180.8	241.1	286.9	306.6
72.5°	121.9	154.6	216.2	262.0	280.4
75°	93.0	129.7	190.0	229.3	241.1
77.5°	69.4	107.4	162.5	182.1	183.4
80°	51.1	82.5	123.2	129.7	135.0
82.5°	35.4	57.6	79.9	87.8	90.4
85°	22.3	34.1	45.9	49.8	49.8
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)