

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: P308172

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-HRP-CP125-W2A-U-4500K**

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: P308172
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-CP125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 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: 1979.0 lumens
Efficiency: N/A
Efficacy: 86.8 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

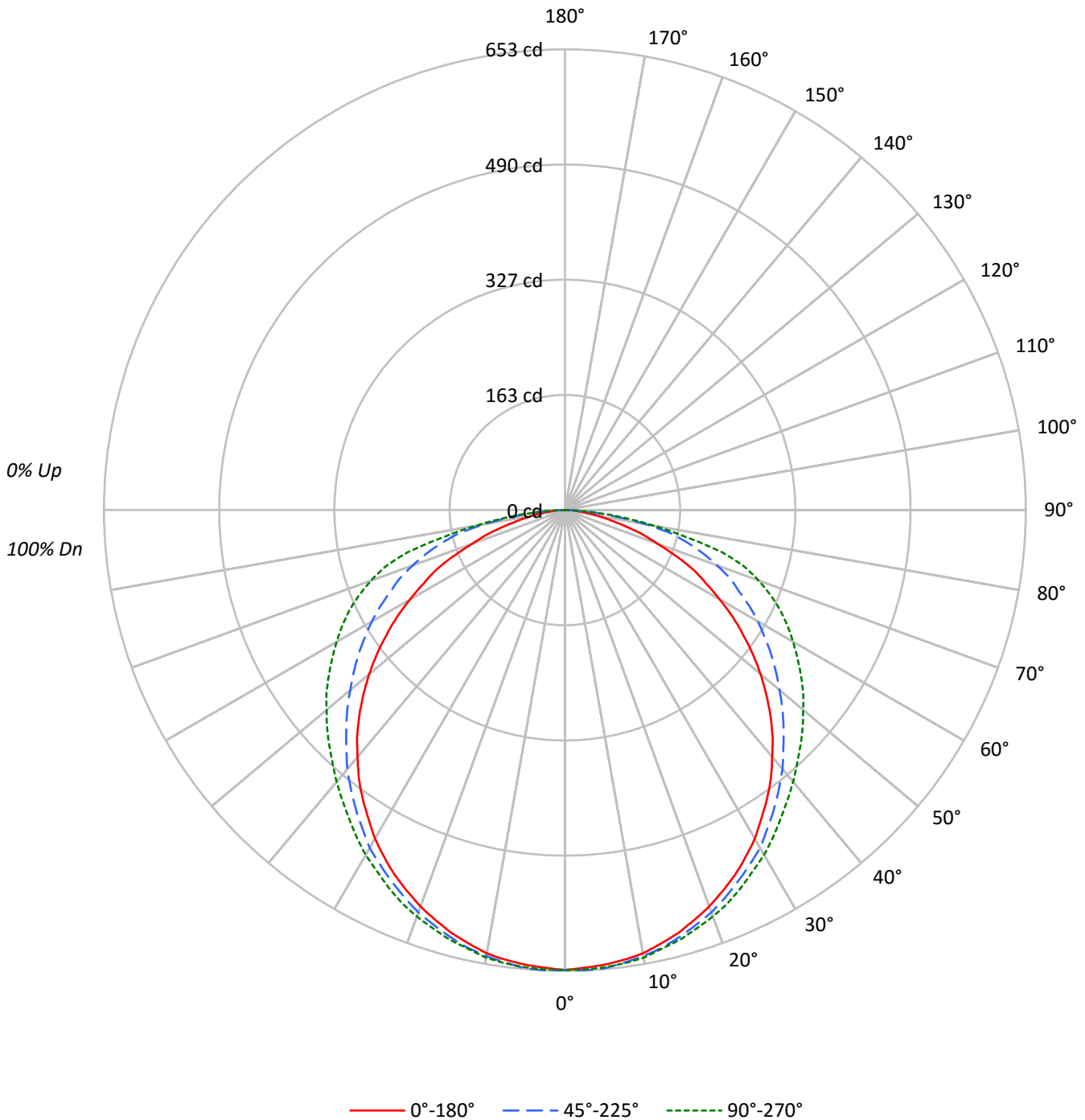
Input Watts (W): 22.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1754	1754	1754
5°	1747	1760	1757
10°	1743	1753	1760
15°	1729	1746	1756
20°	1712	1737	1755
25°	1694	1724	1753
30°	1672	1718	1753
35°	1641	1698	1751
40°	1605	1684	1767
45°	1568	1668	1796
50°	1515	1662	1845
55°	1447	1675	1915
60°	1364	1700	2009
65°	1287	1733	2146
70°	1100	1807	2298
75°	921	1882	2388
80°	755	1818	1993
85°	655	1349	1463



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.8	3.1
10°-20°	176.7	8.9
20°-30°	267.7	13.5
30°-40°	323.3	16.3
40°-50°	339.7	17.2
50°-60°	319.6	16.2
60°-70°	266.5	13.5
70°-80°	176.6	8.9
80°-90°	47.1	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°	506.2	25.6
0°-40°	829.5	41.9
0°-60°	1488.8	75.2
0°-90°	1979.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1979.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	652	652	652	652	652	
5°	647	648	652	652	650	61
15°	620	623	627	629	630	175
25°	570	574	580	588	590	263
35°	499	504	517	528	533	312
45°	412	418	438	461	472	317
55°	308	322	357	393	408	276
65°	202	220	272	317	337	197
75°	89	124	181	218	230	96
85°	21	32	44	47	47	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	651.7	651.7	651.7	651.7	651.7
2.5°	649.2	650.4	652.9	652.9	651.7
5°	646.7	647.9	651.7	651.7	650.4
7.5°	642.9	644.2	646.7	649.2	647.9
10°	637.9	639.2	641.7	644.2	644.2
12.5°	629.2	630.4	635.4	636.7	636.7
15°	620.5	622.9	626.7	629.2	630.4
17.5°	609.2	611.7	616.7	621.7	621.7
20°	598.0	600.5	606.7	611.7	613.0
22.5°	584.2	588.0	594.2	600.5	603.0
25°	570.5	574.3	580.5	588.0	590.5
27.5°	554.3	558.0	566.8	575.5	576.8
30°	538.1	541.8	553.0	560.5	564.3
32.5°	518.1	523.1	534.3	545.5	549.3
35°	499.4	504.4	516.8	528.1	533.1
37.5°	479.4	484.4	498.1	511.8	518.1
40°	456.9	463.2	479.4	494.4	503.1
42.5°	435.7	441.9	458.2	478.1	486.9
45°	412.0	418.2	438.2	460.7	471.9
47.5°	387.0	394.5	418.2	445.7	456.9
50°	362.0	370.8	397.0	428.2	440.7
52.5°	335.8	347.1	377.0	410.7	425.7
55°	308.4	322.1	357.0	393.2	408.2
57.5°	282.1	294.6	335.8	374.5	390.7
60°	253.4	269.7	315.8	355.8	373.3
62.5°	226.0	243.4	294.6	337.1	355.8
65°	202.2	219.7	272.2	317.1	337.1
67.5°	171.0	194.7	253.4	295.9	315.8
70°	139.8	172.3	229.7	273.4	292.1
72.5°	116.1	147.3	206.0	249.7	267.2
75°	88.6	123.6	181.0	218.5	229.7
77.5°	66.2	102.4	154.8	173.5	174.8
80°	48.7	78.6	117.3	123.6	128.6
82.5°	33.7	54.9	76.2	83.6	86.1
85°	21.2	32.5	43.7	47.4	47.4
87.5°	11.2	12.5	15.0	15.0	15.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)