

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: P308169

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-HRP-CP125-W2A-U-3000K**

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: P308169
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-3000K
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: 1840.0 lumens
Efficiency: N/A
Efficacy: 82.9 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

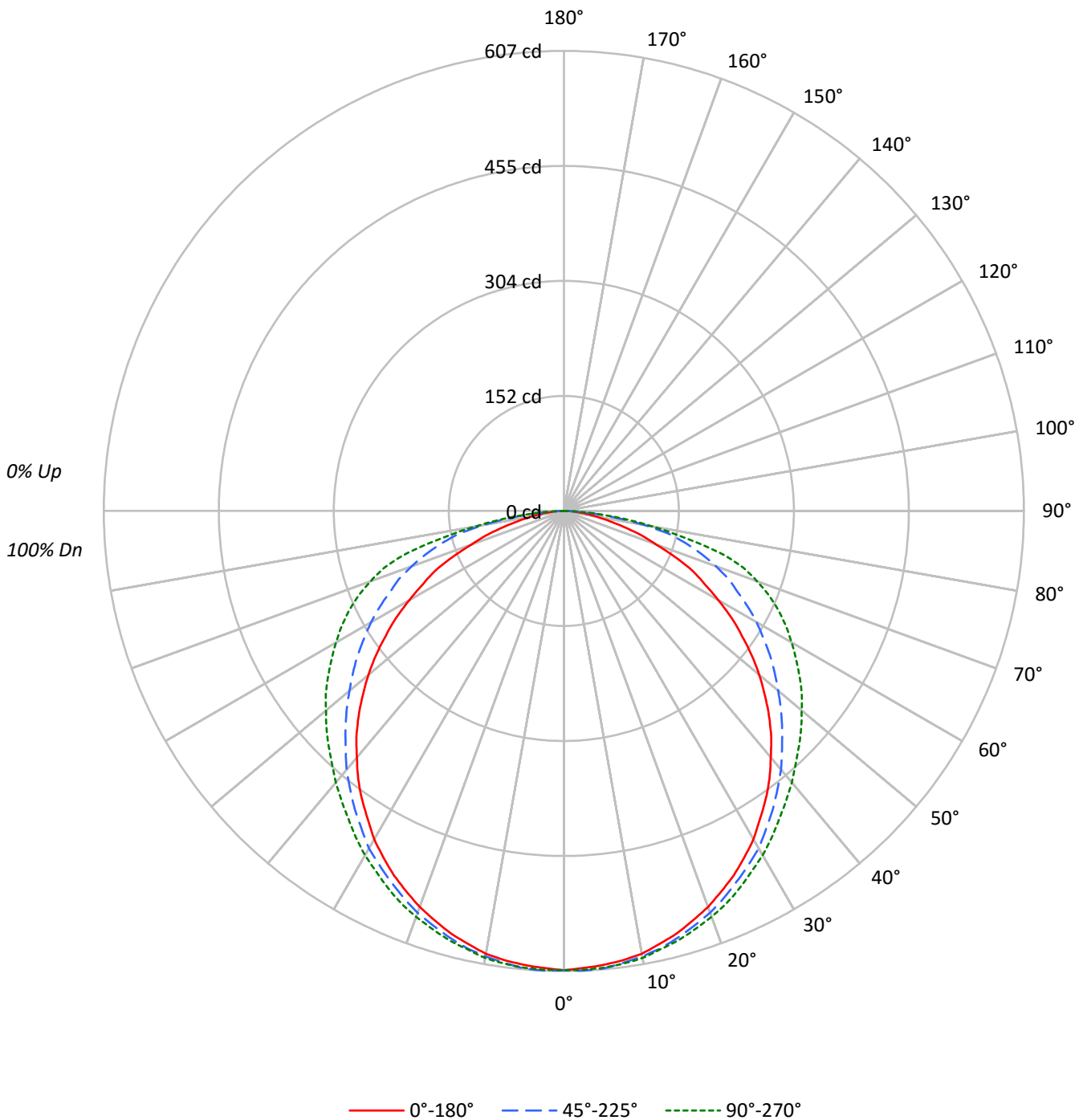
Input Watts (W): 22.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1630	1630	1630
5°	1624	1637	1633
10°	1621	1630	1636
15°	1607	1623	1633
20°	1592	1615	1632
25°	1575	1602	1630
30°	1555	1598	1630
35°	1525	1578	1628
40°	1492	1566	1643
45°	1458	1550	1670
50°	1409	1545	1715
55°	1345	1558	1781
60°	1268	1581	1868
65°	1197	1611	1996
70°	1023	1681	2137
75°	857	1750	2221
80°	702	1691	1853
85°	608	1254	1362



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.4	3.1
10°-20°	164.3	8.9
20°-30°	248.9	13.5
30°-40°	300.6	16.3
40°-50°	315.9	17.2
50°-60°	297.2	16.2
60°-70°	247.8	13.5
70°-80°	164.2	8.9
80°-90°	43.8	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°	470.6	25.6
0°-40°	771.2	41.9
0°-60°	1384.2	75.2
0°-90°	1840.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1840.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	606	606	606	606	606	
5°	601	602	606	606	605	57
15°	577	579	583	585	586	163
25°	530	534	540	547	549	244
35°	464	469	480	491	496	290
45°	383	389	407	428	439	295
55°	287	300	332	366	380	256
65°	188	204	253	295	313	183
75°	82	115	168	203	214	89
85°	20	30	41	44	44	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	605.9	605.9	605.9	605.9	605.9
2.5°	603.6	604.7	607.1	607.1	605.9
5°	601.2	602.4	605.9	605.9	604.7
7.5°	597.8	598.9	601.2	603.6	602.4
10°	593.1	594.3	596.6	598.9	598.9
12.5°	585.0	586.2	590.8	592.0	592.0
15°	576.9	579.2	582.7	585.0	586.2
17.5°	566.4	568.7	573.4	578.0	578.0
20°	556.0	558.3	564.1	568.7	569.9
22.5°	543.2	546.7	552.5	558.3	560.6
25°	530.4	533.9	539.7	546.7	549.0
27.5°	515.4	518.8	527.0	535.1	536.2
30°	500.3	503.7	514.2	521.2	524.6
32.5°	481.7	486.3	496.8	507.2	510.7
35°	464.3	468.9	480.5	491.0	495.6
37.5°	445.7	450.4	463.1	475.9	481.7
40°	424.8	430.6	445.7	459.6	467.8
42.5°	405.1	410.9	426.0	444.6	452.7
45°	383.0	388.8	407.4	428.3	438.7
47.5°	359.8	366.8	388.8	414.4	424.8
50°	336.6	344.7	369.1	398.1	409.7
52.5°	312.2	322.7	350.5	381.9	395.8
55°	286.7	299.5	332.0	365.6	379.6
57.5°	262.3	273.9	312.2	348.2	363.3
60°	235.6	250.7	293.7	330.8	347.1
62.5°	210.1	226.3	273.9	313.4	330.8
65°	188.0	204.3	253.0	294.8	313.4
67.5°	159.0	181.1	235.6	275.1	293.7
70°	130.0	160.2	213.6	254.2	271.6
72.5°	107.9	137.0	191.5	232.1	248.4
75°	82.4	114.9	168.3	203.1	213.6
77.5°	61.5	95.2	143.9	161.3	162.5
80°	45.3	73.1	109.1	114.9	119.6
82.5°	31.3	51.1	70.8	77.8	80.1
85°	19.7	30.2	40.6	44.1	44.1
87.5°	10.4	11.6	13.9	13.9	13.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)