

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: P308445

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-RDP-CP125-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: P308445
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
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-RDP-CP125-W2A-U-5700K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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: 1750.0 lumens
Efficiency: N/A
Efficacy: 76.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

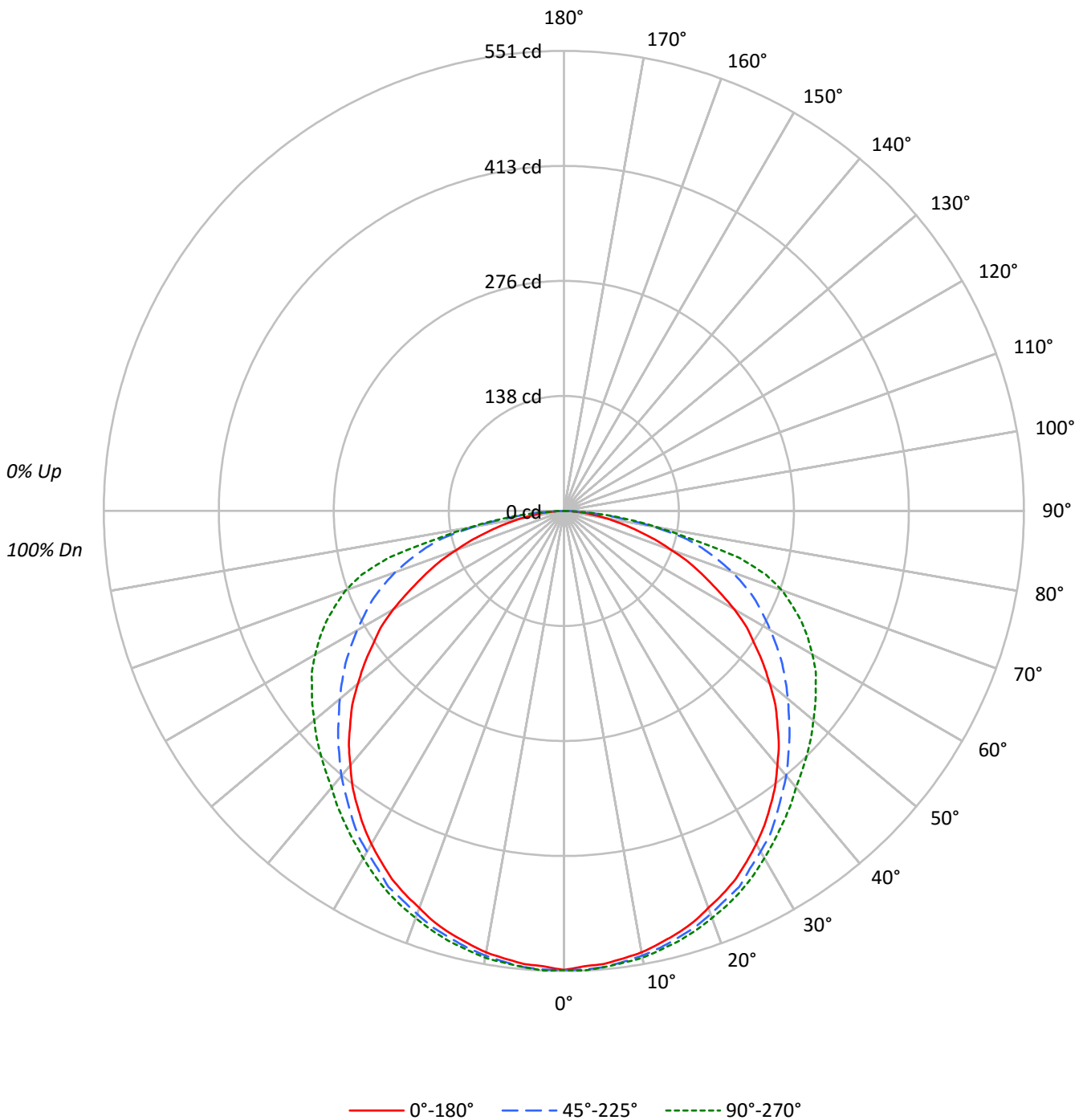
Input Watts (W): 23
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	100	96	92	96	92	89	92	89	86	88	86	84	82				
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67				
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55				
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47				
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40				
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35				
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31				
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27				
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24				
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1479	1479	1479
5°	1471	1481	1481
10°	1467	1477	1485
15°	1460	1474	1485
20°	1449	1471	1486
25°	1445	1475	1491
30°	1432	1464	1492
35°	1417	1459	1501
40°	1397	1456	1520
45°	1376	1455	1568
50°	1347	1466	1633
55°	1311	1498	1727
60°	1268	1538	1850
65°	1181	1615	2000
70°	1083	1692	2188
75°	950	1780	2262
80°	818	1695	1776
85°	716	1232	1352



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.0	3.0
10°-20°	149.3	8.5
20°-30°	227.8	13.0
30°-40°	278.1	15.9
40°-50°	297.4	17.0
50°-60°	287.0	16.4
60°-70°	247.1	14.1
70°-80°	167.2	9.6
80°-90°	44.1	2.5
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°	429.1	24.5
0°-40°	707.2	40.4
0°-60°	1291.6	73.8
0°-90°	1750.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1750.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	550	550	550	550	550	
5°	545	546	548	548	548	52
15°	524	525	529	532	533	148
25°	487	489	497	500	502	224
35°	431	435	444	453	457	270
45°	362	368	382	402	412	279
55°	279	288	319	352	368	250
65°	185	203	254	294	314	184
75°	91	121	171	206	218	98
85°	23	32	40	41	44	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	549.7	549.7	549.7	549.7	549.7
2.5°	545.8	547.1	549.7	549.7	551.0
5°	544.6	545.8	548.4	548.4	548.4
7.5°	540.7	542.0	544.6	545.8	545.8
10°	536.8	538.1	540.7	542.0	543.3
12.5°	530.4	531.7	535.5	538.1	538.1
15°	524.0	525.2	529.1	531.7	533.0
17.5°	516.2	518.8	522.7	525.2	526.5
20°	505.9	508.5	513.7	517.5	518.8
22.5°	496.9	499.5	504.6	508.5	511.1
25°	486.6	489.2	496.9	499.5	502.1
27.5°	473.8	476.3	482.8	487.9	491.8
30°	460.9	463.5	471.2	477.6	480.2
32.5°	446.7	450.6	459.6	464.7	468.6
35°	431.3	435.1	444.1	453.2	457.0
37.5°	415.8	419.7	428.7	440.3	445.4
40°	397.8	402.9	414.5	430.0	432.6
42.5°	381.1	387.5	397.8	415.8	422.3
45°	361.7	368.2	382.3	401.7	412.0
47.5°	343.7	350.2	365.6	388.8	401.7
50°	321.8	330.9	350.2	377.2	390.1
52.5°	301.2	309.0	334.7	364.3	379.8
55°	279.4	288.4	319.3	351.5	368.2
57.5°	260.0	267.8	302.5	338.6	357.9
60°	235.6	245.9	285.8	324.4	343.7
62.5°	209.8	225.3	269.1	309.0	329.6
65°	185.4	203.4	253.6	293.5	314.1
67.5°	163.5	182.8	234.3	276.8	296.1
70°	137.7	162.2	215.0	256.2	278.1
72.5°	114.6	141.6	193.1	234.3	253.6
75°	91.4	121.0	171.2	206.0	217.6
77.5°	70.8	99.1	146.8	157.1	158.3
80°	52.8	78.5	109.4	110.7	114.6
82.5°	36.0	55.4	70.8	77.2	78.5
85°	23.2	32.2	39.9	41.2	43.8
87.5°	10.3	11.6	14.2	12.9	12.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)