

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: P308457

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-RDP-CP250-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: P308457
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-CP250-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" 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: 1506.0 lumens
Efficiency: N/A
Efficacy: 67.8 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

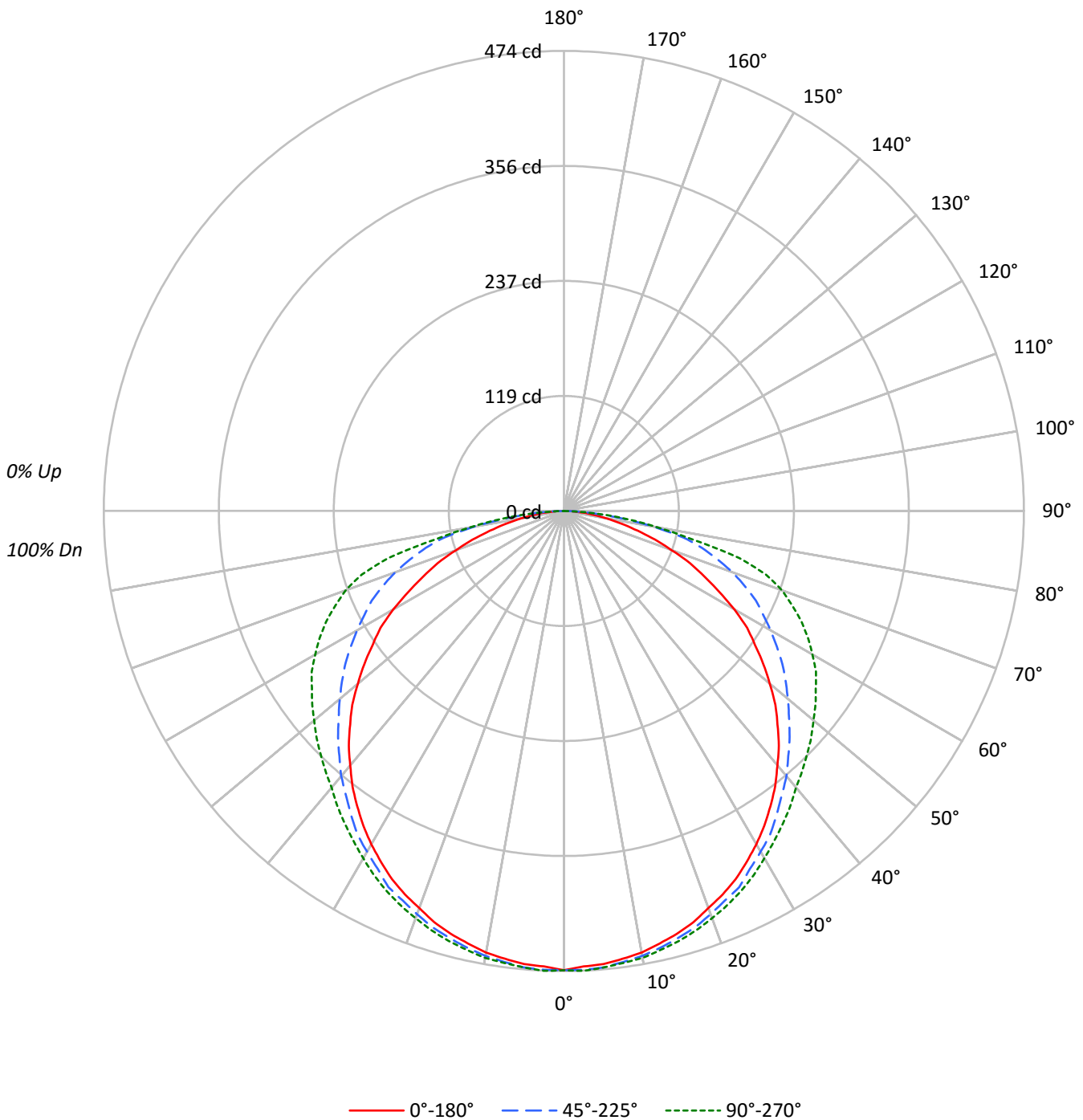
Input Watts (W): 22.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1273	1273	1273
5°	1266	1275	1275
10°	1262	1271	1277
15°	1256	1268	1278
20°	1247	1266	1279
25°	1243	1270	1283
30°	1232	1260	1284
35°	1219	1256	1292
40°	1202	1253	1307
45°	1185	1252	1349
50°	1160	1261	1405
55°	1128	1289	1487
60°	1091	1323	1592
65°	1016	1390	1721
70°	932	1456	1883
75°	818	1531	1946
80°	704	1460	1528
85°	614	1059	1164



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.7	3.0
10°-20°	128.5	8.5
20°-30°	196.0	13.0
30°-40°	239.3	15.9
40°-50°	255.9	17.0
50°-60°	247.0	16.4
60°-70°	212.6	14.1
70°-80°	143.9	9.6
80°-90°	38.0	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°	369.3	24.5
0°-40°	608.6	40.4
0°-60°	1111.5	73.8
0°-90°	1506.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1506.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	473	473	473	473	473	
5°	469	470	472	472	472	45
15°	451	452	455	458	459	127
25°	419	421	428	430	432	193
35°	371	374	382	390	393	232
45°	311	317	329	346	354	240
55°	240	248	275	302	317	215
65°	160	175	218	253	270	159
75°	79	104	147	177	187	84
85°	20	28	34	36	38	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	473.1	473.1	473.1	473.1	473.1
2.5°	469.7	470.8	473.1	473.1	474.2
5°	468.6	469.7	472.0	472.0	472.0
7.5°	465.3	466.4	468.6	469.7	469.7
10°	462.0	463.1	465.3	466.4	467.5
12.5°	456.4	457.6	460.9	463.1	463.1
15°	450.9	452.0	455.3	457.6	458.7
17.5°	444.3	446.5	449.8	452.0	453.1
20°	435.4	437.6	442.0	445.4	446.5
22.5°	427.6	429.9	434.3	437.6	439.8
25°	418.8	421.0	427.6	429.9	432.1
27.5°	407.7	409.9	415.5	419.9	423.2
30°	396.6	398.8	405.5	411.0	413.2
32.5°	384.4	387.8	395.5	399.9	403.3
35°	371.1	374.5	382.2	390.0	393.3
37.5°	357.8	361.2	368.9	378.9	383.3
40°	342.3	346.8	356.7	370.0	372.2
42.5°	327.9	333.5	342.3	357.8	363.4
45°	311.3	316.9	329.0	345.7	354.5
47.5°	295.8	301.3	314.6	334.6	345.7
50°	277.0	284.7	301.3	324.6	335.7
52.5°	259.2	265.9	288.0	313.5	326.8
55°	240.4	248.2	274.8	302.4	316.9
57.5°	223.8	230.4	260.3	291.4	308.0
60°	202.7	211.6	245.9	279.2	295.8
62.5°	180.6	193.9	231.5	265.9	283.6
65°	159.5	175.0	218.3	252.6	270.3
67.5°	140.7	157.3	201.6	238.2	254.8
70°	118.5	139.6	185.0	220.5	239.3
72.5°	98.6	121.9	166.2	201.6	218.3
75°	78.7	104.1	147.3	177.3	187.2
77.5°	60.9	85.3	126.3	135.2	136.3
80°	45.4	67.6	94.2	95.3	98.6
82.5°	31.0	47.6	60.9	66.5	67.6
85°	19.9	27.7	34.3	35.5	37.7
87.5°	8.9	10.0	12.2	11.1	11.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)