

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: P308146

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-HRP-CP250-W2A-U-5000K**

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: P308146
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: 22FCZ2-24HE-UNV-L82765-HRP-CP250-W2A-U-5000K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 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: 1629.0 lumens
Efficiency: N/A
Efficacy: 84.4 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

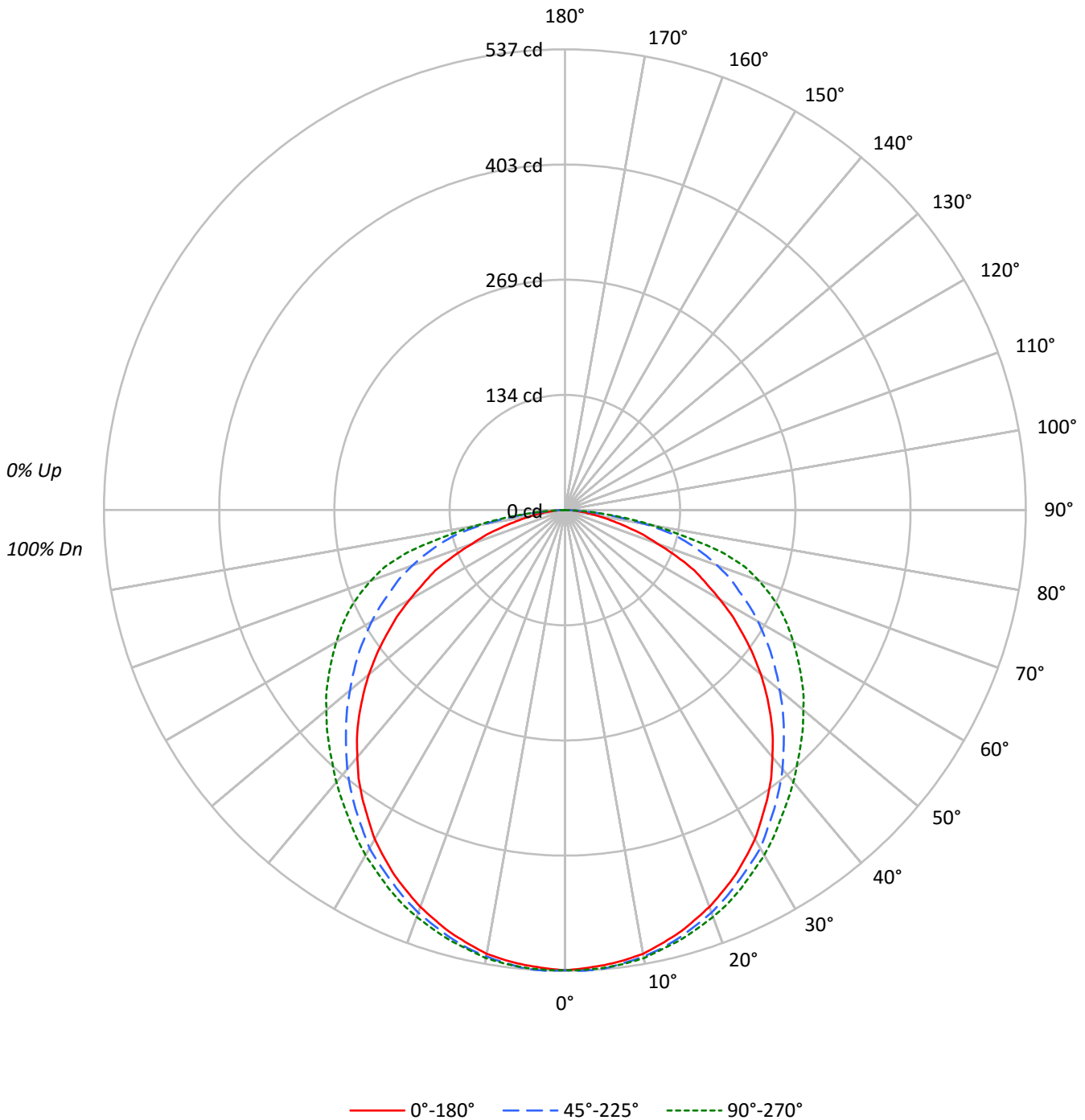
Input Watts (W): 19.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1443	1443	1443
5°	1438	1449	1446
10°	1435	1443	1449
15°	1423	1437	1446
20°	1410	1430	1445
25°	1394	1419	1443
30°	1376	1414	1443
35°	1350	1397	1441
40°	1321	1386	1455
45°	1290	1373	1478
50°	1248	1368	1518
55°	1191	1379	1576
60°	1123	1399	1654
65°	1060	1426	1767
70°	906	1488	1892
75°	759	1549	1966
80°	621	1497	1640
85°	540	1112	1204



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.8	3.1
10°-20°	145.4	8.9
20°-30°	220.4	13.5
30°-40°	266.1	16.3
40°-50°	279.6	17.2
50°-60°	263.1	16.2
60°-70°	219.4	13.5
70°-80°	145.4	8.9
80°-90°	38.7	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°	416.6	25.6
0°-40°	682.8	41.9
0°-60°	1225.5	75.2
0°-90°	1629.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1629.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	536	536	536	536	536	
5°	532	533	536	536	535	51
15°	511	513	516	518	519	144
25°	470	473	478	484	486	216
35°	411	415	425	435	439	257
45°	339	344	361	379	388	261
55°	254	265	294	324	336	227
65°	166	181	224	261	278	162
75°	73	102	149	180	189	79
85°	18	27	36	39	39	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	536.4	536.4	536.4	536.4	536.4
2.5°	534.4	535.4	537.4	537.4	536.4
5°	532.3	533.3	536.4	536.4	535.4
7.5°	529.2	530.2	532.3	534.4	533.3
10°	525.1	526.1	528.2	530.2	530.2
12.5°	517.9	518.9	523.1	524.1	524.1
15°	510.7	512.8	515.9	517.9	518.9
17.5°	501.5	503.5	507.6	511.7	511.7
20°	492.2	494.3	499.4	503.5	504.6
22.5°	480.9	484.0	489.1	494.3	496.3
25°	469.6	472.7	477.8	484.0	486.1
27.5°	456.3	459.3	466.5	473.7	474.8
30°	442.9	446.0	455.2	461.4	464.5
32.5°	426.5	430.6	439.8	449.1	452.1
35°	411.0	415.2	425.4	434.7	438.8
37.5°	394.6	398.7	410.0	421.3	426.5
40°	376.1	381.2	394.6	406.9	414.1
42.5°	358.6	363.8	377.1	393.6	400.8
45°	339.1	344.2	360.7	379.2	388.4
47.5°	318.6	324.7	344.2	366.9	376.1
50°	298.0	305.2	326.8	352.5	362.7
52.5°	276.4	285.7	310.3	338.1	350.4
55°	253.8	265.1	293.9	323.7	336.0
57.5°	232.2	242.5	276.4	308.3	321.6
60°	208.6	222.0	260.0	292.9	307.3
62.5°	186.0	200.4	242.5	277.5	292.9
65°	166.5	180.9	224.0	261.0	277.5
67.5°	140.8	160.3	208.6	243.5	260.0
70°	115.1	141.8	189.1	225.0	240.5
72.5°	95.6	121.3	169.6	205.5	219.9
75°	73.0	101.7	149.0	179.8	189.1
77.5°	54.5	84.3	127.4	142.8	143.9
80°	40.1	64.7	96.6	101.7	105.8
82.5°	27.7	45.2	62.7	68.8	70.9
85°	17.5	26.7	36.0	39.0	39.0
87.5°	9.2	10.3	12.3	12.3	12.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)