

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: P312475

Luminaire Tested: **22FCZ2-24HE-UNV-L83050-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: P312475
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-L83050-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: 1632.0 lumens
Efficiency: N/A
Efficacy: 86.4 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

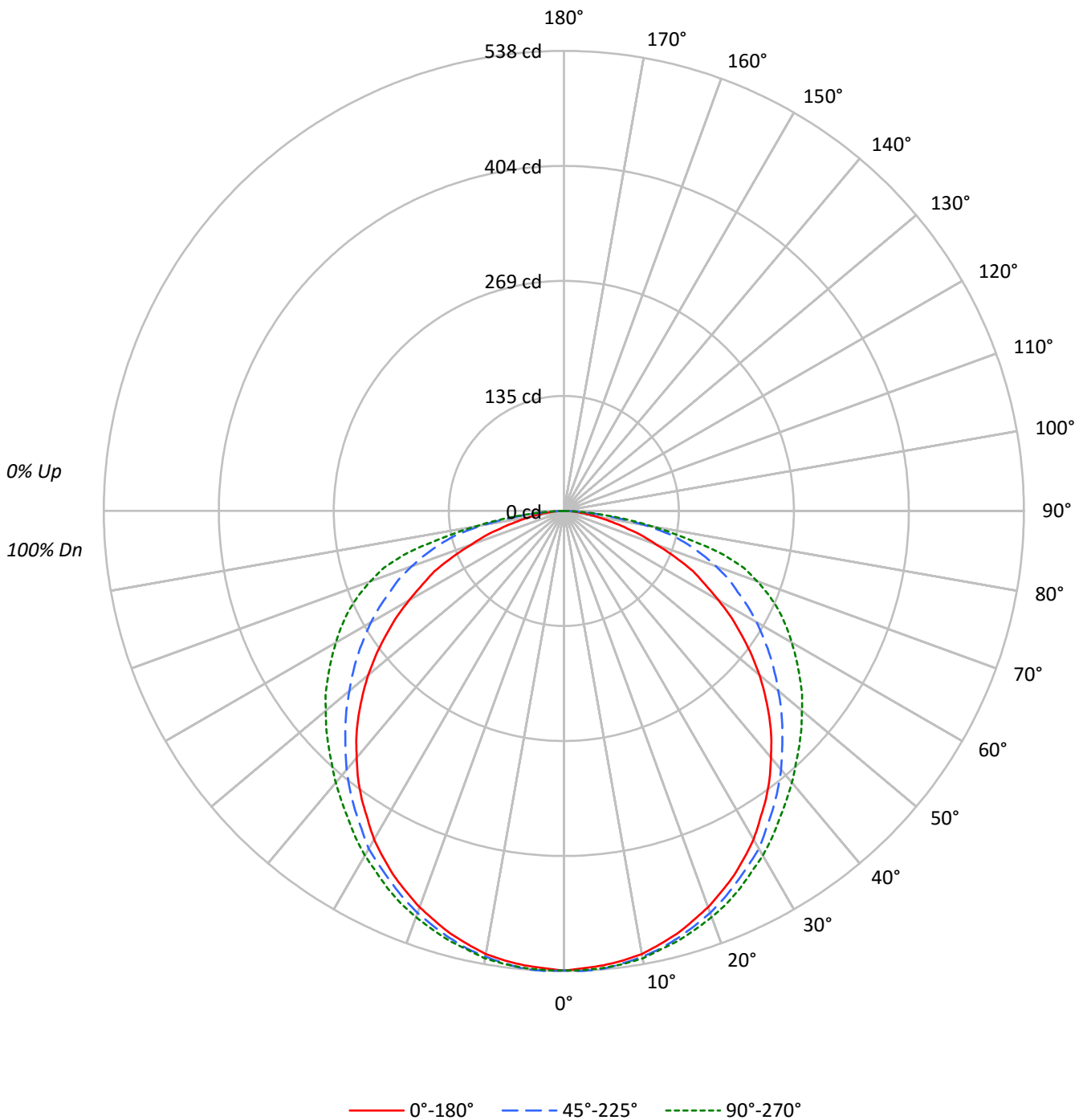
Input Watts (W): 18.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	83	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°	1446	1446	1446
5°	1441	1452	1449
10°	1438	1446	1451
15°	1426	1440	1448
20°	1412	1433	1448
25°	1397	1421	1446
30°	1379	1417	1446
35°	1353	1400	1444
40°	1324	1389	1457
45°	1293	1375	1481
50°	1250	1371	1521
55°	1193	1381	1579
60°	1125	1402	1657
65°	1062	1429	1770
70°	907	1490	1895
75°	760	1552	1969
80°	623	1500	1643
85°	540	1112	1207



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.9	3.1
10°-20°	145.7	8.9
20°-30°	220.8	13.5
30°-40°	266.6	16.3
40°-50°	280.1	17.2
50°-60°	263.6	16.2
60°-70°	219.8	13.5
70°-80°	145.6	8.9
80°-90°	38.8	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°	417.4	25.6
0°-40°	684.0	41.9
0°-60°	1227.8	75.2
0°-90°	1632.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1632.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	537	537	537	537	537	
5°	533	534	537	537	536	51
15°	512	514	517	519	520	144
25°	470	474	479	485	487	217
35°	412	416	426	436	440	257
45°	340	345	361	380	389	262
55°	254	266	294	324	337	227
65°	167	181	224	262	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°	537.4	537.4	537.4	537.4	537.4
2.5°	535.3	536.4	538.4	538.4	537.4
5°	533.3	534.3	537.4	537.4	536.4
7.5°	530.2	531.2	533.3	535.3	534.3
10°	526.1	527.1	529.2	531.2	531.2
12.5°	518.9	519.9	524.0	525.0	525.0
15°	511.7	513.7	516.8	518.9	519.9
17.5°	502.4	504.5	508.6	512.7	512.7
20°	493.1	495.2	500.3	504.5	505.5
22.5°	481.8	484.9	490.0	495.2	497.2
25°	470.5	473.6	478.7	484.9	487.0
27.5°	457.1	460.2	467.4	474.6	475.6
30°	443.7	446.8	456.1	462.2	465.3
32.5°	427.2	431.4	440.6	449.9	453.0
35°	411.8	415.9	426.2	435.5	439.6
37.5°	395.3	399.4	410.8	422.1	427.2
40°	376.8	381.9	395.3	407.7	414.9
42.5°	359.3	364.4	377.8	394.3	401.5
45°	339.7	344.9	361.4	379.9	389.2
47.5°	319.1	325.3	344.9	367.5	376.8
50°	298.6	305.8	327.4	353.1	363.4
52.5°	276.9	286.2	310.9	338.7	351.1
55°	254.3	265.6	294.4	324.3	336.6
57.5°	232.7	243.0	276.9	308.9	322.2
60°	209.0	222.4	260.5	293.4	307.8
62.5°	186.3	200.8	243.0	278.0	293.4
65°	166.8	181.2	224.4	261.5	278.0
67.5°	141.0	160.6	209.0	244.0	260.5
70°	115.3	142.1	189.4	225.5	240.9
72.5°	95.7	121.5	169.9	205.9	220.3
75°	73.1	101.9	149.3	180.2	189.4
77.5°	54.6	84.4	127.7	143.1	144.1
80°	40.2	64.9	96.8	101.9	106.0
82.5°	27.8	45.3	62.8	69.0	71.0
85°	17.5	26.8	36.0	39.1	39.1
87.5°	9.3	10.3	12.4	12.4	12.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)