

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: P312622

Luminaire Tested: **22FCZ2-24HE-UNV-L83050-RDP-CA125-W2A-U-4000K**

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: P312622
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: 22FCZ2-24HE-UNV-L83050-RDP-CA125-W2A-U-4000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (168) 4000K 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: 1537.0 lumens
Efficiency: N/A
Efficacy: 79.6 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

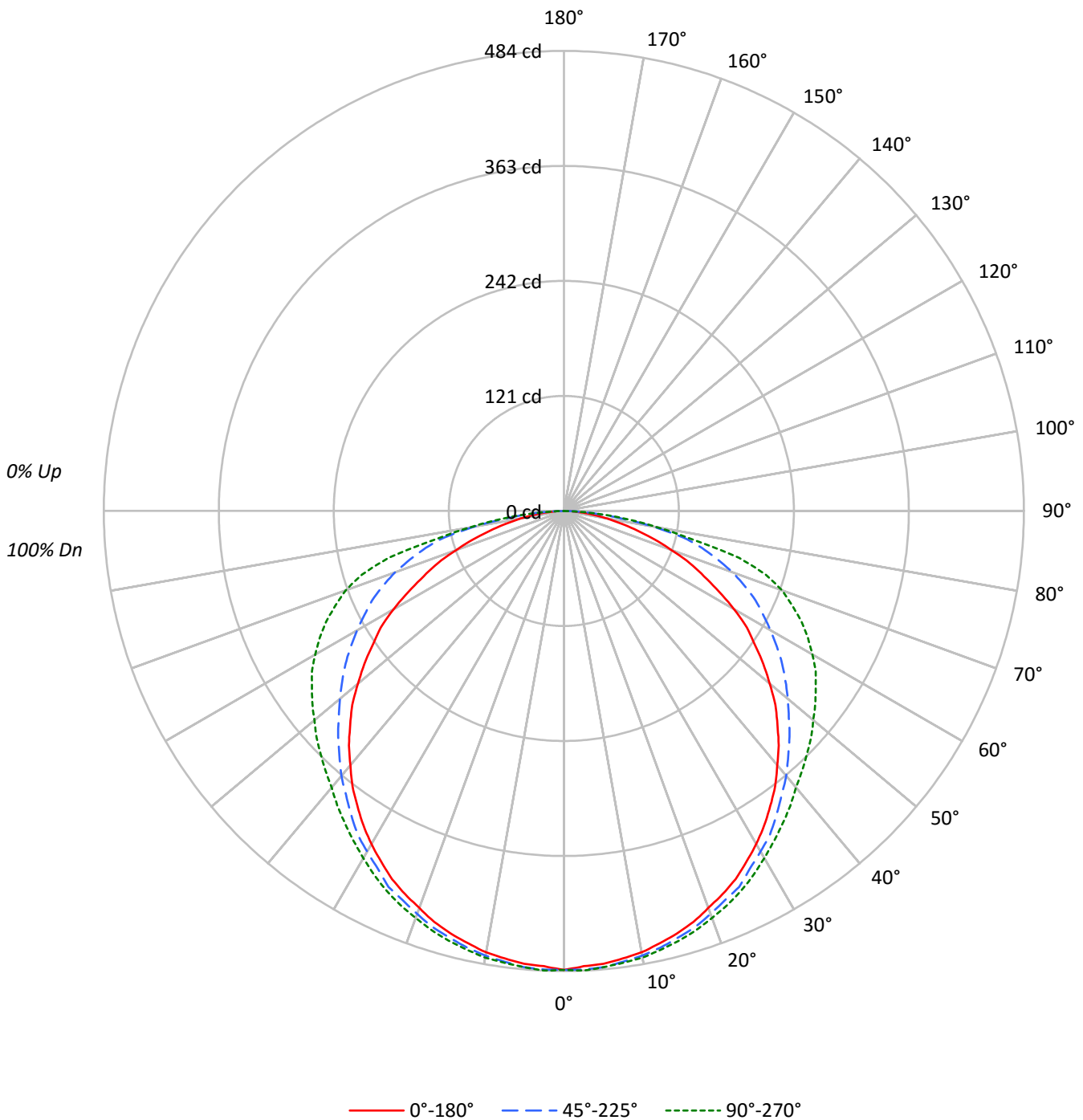
Input Watts (W): 19.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1299	1299	1299
5°	1292	1301	1301
10°	1288	1298	1304
15°	1282	1295	1304
20°	1273	1292	1305
25°	1269	1296	1309
30°	1258	1286	1310
35°	1244	1282	1319
40°	1227	1279	1335
45°	1209	1278	1377
50°	1184	1287	1434
55°	1151	1316	1517
60°	1114	1351	1625
65°	1037	1418	1757
70°	952	1485	1921
75°	835	1564	1987
80°	719	1489	1559
85°	630	1084	1186



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.7	3.0
10°-20°	131.1	8.5
20°-30°	200.1	13.0
30°-40°	244.3	15.9
40°-50°	261.2	17.0
50°-60°	252.1	16.4
60°-70°	217.0	14.1
70°-80°	146.8	9.6
80°-90°	38.7	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°	376.8	24.5
0°-40°	621.1	40.4
0°-60°	1134.4	73.8
0°-90°	1537.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1537.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	483	483	483	483	483	
5°	478	479	482	482	482	45
15°	460	461	465	467	468	130
25°	427	430	436	439	441	197
35°	379	382	390	398	401	237
45°	318	323	336	353	362	245
55°	245	253	280	309	323	220
65°	163	179	223	258	276	162
75°	80	106	150	181	191	86
85°	20	28	35	36	38	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	482.8	482.8	482.8	482.8	482.8
2.5°	479.4	480.5	482.8	482.8	483.9
5°	478.3	479.4	481.7	481.7	481.7
7.5°	474.9	476.0	478.3	479.4	479.4
10°	471.5	472.6	474.9	476.0	477.1
12.5°	465.8	467.0	470.4	472.6	472.6
15°	460.2	461.3	464.7	467.0	468.1
17.5°	453.4	455.7	459.1	461.3	462.4
20°	444.4	446.6	451.1	454.5	455.7
22.5°	436.4	438.7	443.2	446.6	448.9
25°	427.4	429.7	436.4	438.7	441.0
27.5°	416.1	418.3	424.0	428.5	431.9
30°	404.8	407.0	413.8	419.5	421.7
32.5°	392.3	395.7	403.7	408.2	411.6
35°	378.8	382.2	390.1	398.0	401.4
37.5°	365.2	368.6	376.5	386.7	391.2
40°	349.4	353.9	364.1	377.6	379.9
42.5°	334.7	340.3	349.4	365.2	370.9
45°	317.7	323.4	335.8	352.8	361.8
47.5°	301.9	307.5	321.1	341.5	352.8
50°	282.7	290.6	307.5	331.3	342.6
52.5°	264.6	271.4	294.0	320.0	333.5
55°	245.4	253.3	280.4	308.7	323.4
57.5°	228.4	235.2	265.7	297.4	314.3
60°	206.9	216.0	251.0	284.9	301.9
62.5°	184.3	197.9	236.3	271.4	289.5
65°	162.8	178.6	222.7	257.8	275.9
67.5°	143.6	160.6	205.8	243.1	260.1
70°	121.0	142.5	188.8	225.0	244.2
72.5°	100.6	124.4	169.6	205.8	222.7
75°	80.3	106.3	150.4	180.9	191.1
77.5°	62.2	87.1	128.9	137.9	139.1
80°	46.4	69.0	96.1	97.2	100.6
82.5°	31.7	48.6	62.2	67.8	69.0
85°	20.4	28.3	35.1	36.2	38.4
87.5°	9.0	10.2	12.4	11.3	11.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)