

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: P312628

Luminaire Tested: **22FCZ2-24HE-UNV-L83050-RDP-CP125-W2A-U-4500K**

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: P312628
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-CP125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (168) 4500K 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: 1522.0 lumens
Efficiency: N/A
Efficacy: 76.9 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

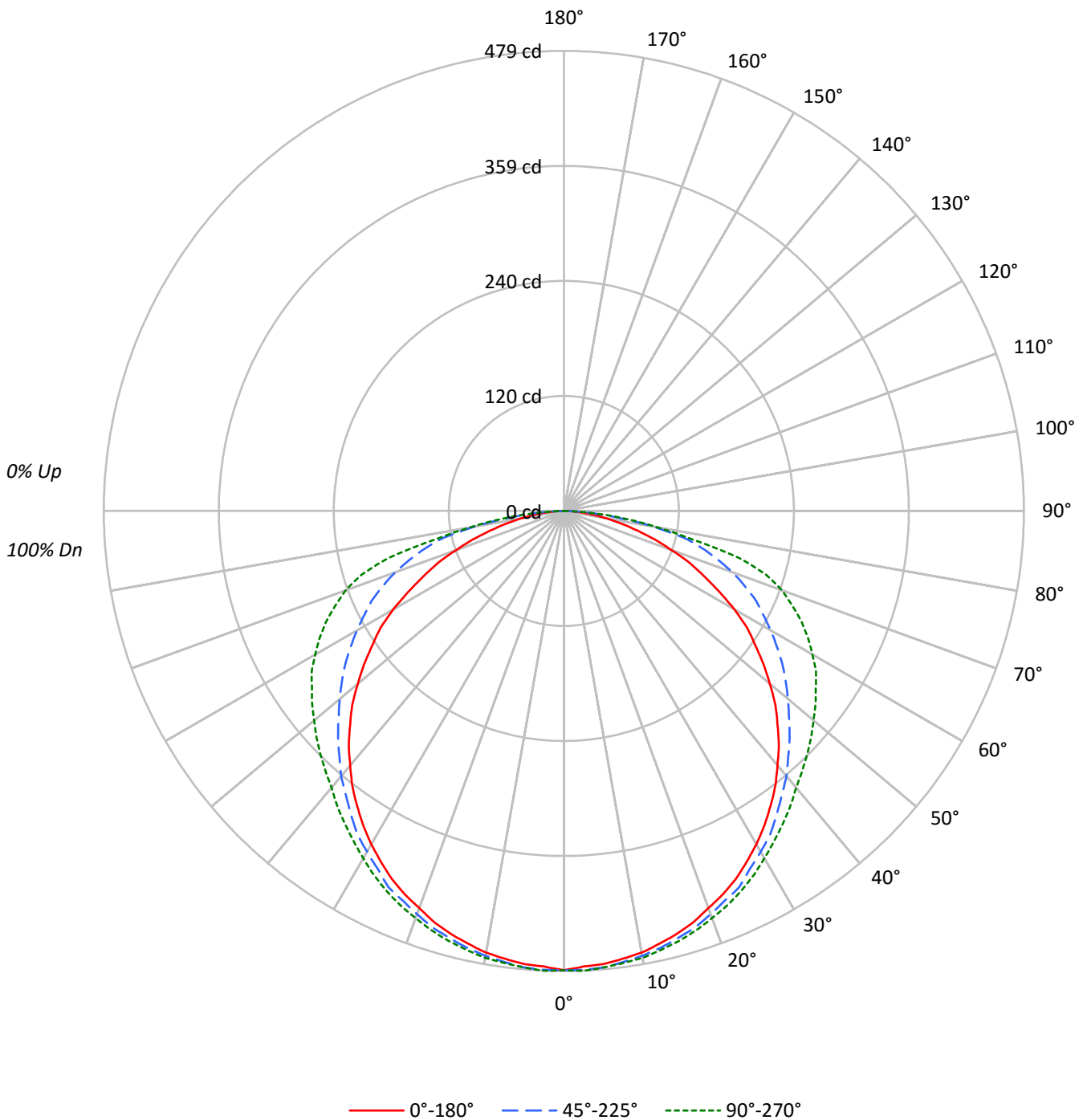
Input Watts (W): 19.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1287	1287	1287
5°	1279	1289	1289
10°	1276	1285	1291
15°	1270	1282	1291
20°	1260	1279	1292
25°	1257	1283	1297
30°	1245	1273	1298
35°	1232	1269	1306
40°	1215	1266	1322
45°	1197	1265	1364
50°	1172	1275	1420
55°	1140	1303	1502
60°	1103	1338	1609
65°	1026	1405	1740
70°	943	1471	1902
75°	827	1548	1967
80°	711	1475	1543
85°	624	1071	1176



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.2	3.0
10°-20°	129.8	8.5
20°-30°	198.1	13.0
30°-40°	241.9	15.9
40°-50°	258.6	17.0
50°-60°	249.7	16.4
60°-70°	214.9	14.1
70°-80°	145.4	9.6
80°-90°	38.4	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°	373.2	24.5
0°-40°	615.1	40.4
0°-60°	1123.3	73.8
0°-90°	1522.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1522.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	478	478	478	478	478	
5°	474	475	477	477	477	45
15°	456	457	460	462	464	129
25°	423	426	432	434	437	195
35°	375	378	386	394	398	235
45°	315	320	332	349	358	243
55°	243	251	278	306	320	218
65°	161	177	221	255	273	160
75°	80	105	149	179	189	85
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°	478.1	478.1	478.1	478.1	478.1
2.5°	474.7	475.8	478.1	478.1	479.2
5°	473.6	474.7	477.0	477.0	477.0
7.5°	470.2	471.4	473.6	474.7	474.7
10°	466.9	468.0	470.2	471.4	472.5
12.5°	461.3	462.4	465.8	468.0	468.0
15°	455.7	456.8	460.2	462.4	463.5
17.5°	449.0	451.2	454.6	456.8	457.9
20°	440.0	442.3	446.7	450.1	451.2
22.5°	432.2	434.4	438.9	442.3	444.5
25°	423.2	425.5	432.2	434.4	436.7
27.5°	412.0	414.3	419.9	424.3	427.7
30°	400.8	403.1	409.8	415.4	417.6
32.5°	388.5	391.9	399.7	404.2	407.5
35°	375.1	378.4	386.3	394.1	397.5
37.5°	361.6	365.0	372.8	382.9	387.4
40°	346.0	350.4	360.5	374.0	376.2
42.5°	331.4	337.0	346.0	361.6	367.2
45°	314.6	320.2	332.5	349.3	358.3
47.5°	298.9	304.5	318.0	338.1	349.3
50°	279.9	287.7	304.5	328.1	339.3
52.5°	262.0	268.7	291.1	316.9	330.3
55°	243.0	250.8	277.7	305.7	320.2
57.5°	226.2	232.9	263.1	294.5	311.3
60°	204.9	213.9	248.6	282.1	298.9
62.5°	182.5	195.9	234.0	268.7	286.6
65°	161.2	176.9	220.6	255.3	273.2
67.5°	142.2	159.0	203.8	240.7	257.5
70°	119.8	141.1	187.0	222.8	241.8
72.5°	99.6	123.2	167.9	203.8	220.6
75°	79.5	105.2	148.9	179.1	189.2
77.5°	61.6	86.2	127.6	136.6	137.7
80°	45.9	68.3	95.2	96.3	99.6
82.5°	31.3	48.1	61.6	67.2	68.3
85°	20.2	28.0	34.7	35.8	38.1
87.5°	9.0	10.1	12.3	11.2	11.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)