

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: P308388

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-RDP-CA125-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: P308388
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-L82765-RDP-CA125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC 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: 1487.0 lumens
Efficiency: N/A
Efficacy: 77.0 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

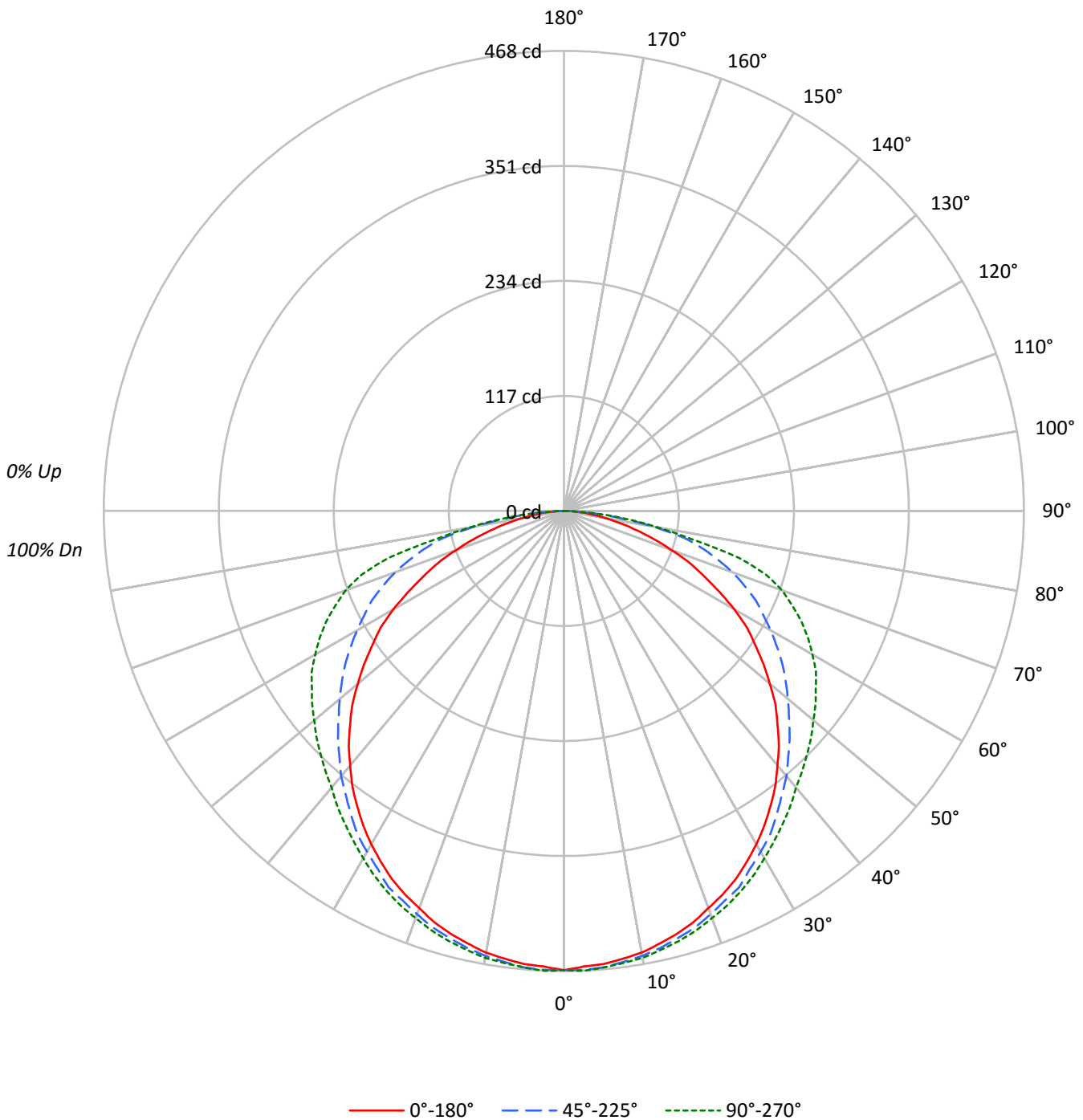
Input Watts (W): 19.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82				82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67				67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55				55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47				47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40				40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35				35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31				31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27				27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24				24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22				22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1257	1257	1257
5°	1250	1259	1259
10°	1247	1255	1261
15°	1240	1253	1262
20°	1231	1250	1262
25°	1228	1254	1267
30°	1217	1244	1268
35°	1204	1240	1276
40°	1187	1237	1291
45°	1170	1236	1332
50°	1145	1245	1387
55°	1114	1273	1468
60°	1077	1307	1572
65°	1003	1372	1699
70°	921	1437	1859
75°	808	1513	1922
80°	694	1441	1509
85°	608	1047	1149



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.2	3.0
10°-20°	126.9	8.5
20°-30°	193.5	13.0
30°-40°	236.3	15.9
40°-50°	252.7	17.0
50°-60°	243.9	16.4
60°-70°	209.9	14.1
70°-80°	142.1	9.6
80°-90°	37.5	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°	364.6	24.5
0°-40°	600.9	40.4
0°-60°	1097.5	73.8
0°-90°	1487.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1487.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	467	467	467	467	467	
5°	463	464	466	466	466	44
15°	445	446	450	452	453	126
25°	414	416	422	424	427	190
35°	366	370	377	385	388	229
45°	307	313	325	341	350	237
55°	237	245	271	299	313	213
65°	158	173	216	249	267	157
75°	78	103	146	175	185	83
85°	20	27	34	35	37	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	467.1	467.1	467.1	467.1	467.1
2.5°	463.8	464.9	467.1	467.1	468.2
5°	462.7	463.8	466.0	466.0	466.0
7.5°	459.4	460.5	462.7	463.8	463.8
10°	456.2	457.2	459.4	460.5	461.6
12.5°	450.7	451.8	455.1	457.2	457.2
15°	445.2	446.3	449.6	451.8	452.9
17.5°	438.7	440.8	444.1	446.3	447.4
20°	429.9	432.1	436.5	439.7	440.8
22.5°	422.2	424.4	428.8	432.1	434.3
25°	413.5	415.7	422.2	424.4	426.6
27.5°	402.6	404.7	410.2	414.6	417.9
30°	391.6	393.8	400.4	405.8	408.0
32.5°	379.6	382.9	390.5	394.9	398.2
35°	366.5	369.7	377.4	385.1	388.3
37.5°	353.3	356.6	364.3	374.1	378.5
40°	338.0	342.4	352.2	365.4	367.5
42.5°	323.8	329.3	338.0	353.3	358.8
45°	307.4	312.9	324.9	341.3	350.0
47.5°	292.1	297.5	310.7	330.4	341.3
50°	273.5	281.1	297.5	320.5	331.4
52.5°	256.0	262.5	284.4	309.6	322.7
55°	237.4	245.0	271.3	298.6	312.9
57.5°	221.0	227.5	257.1	287.7	304.1
60°	200.2	208.9	242.8	275.7	292.1
62.5°	178.3	191.4	228.6	262.5	280.0
65°	157.5	172.8	215.5	249.4	266.9
67.5°	138.9	155.3	199.1	235.2	251.6
70°	117.0	137.8	182.7	217.7	236.3
72.5°	97.4	120.3	164.1	199.1	215.5
75°	77.7	102.8	145.5	175.0	184.9
77.5°	60.2	84.2	124.7	133.5	134.5
80°	44.8	66.7	93.0	94.1	97.4
82.5°	30.6	47.0	60.2	65.6	66.7
85°	19.7	27.3	33.9	35.0	37.2
87.5°	8.8	9.8	12.0	10.9	10.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)