

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: P308142

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-HRP-CP250-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: P308142
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-3000K
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: 1494.0 lumens
Efficiency: N/A
Efficacy: 79.5 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

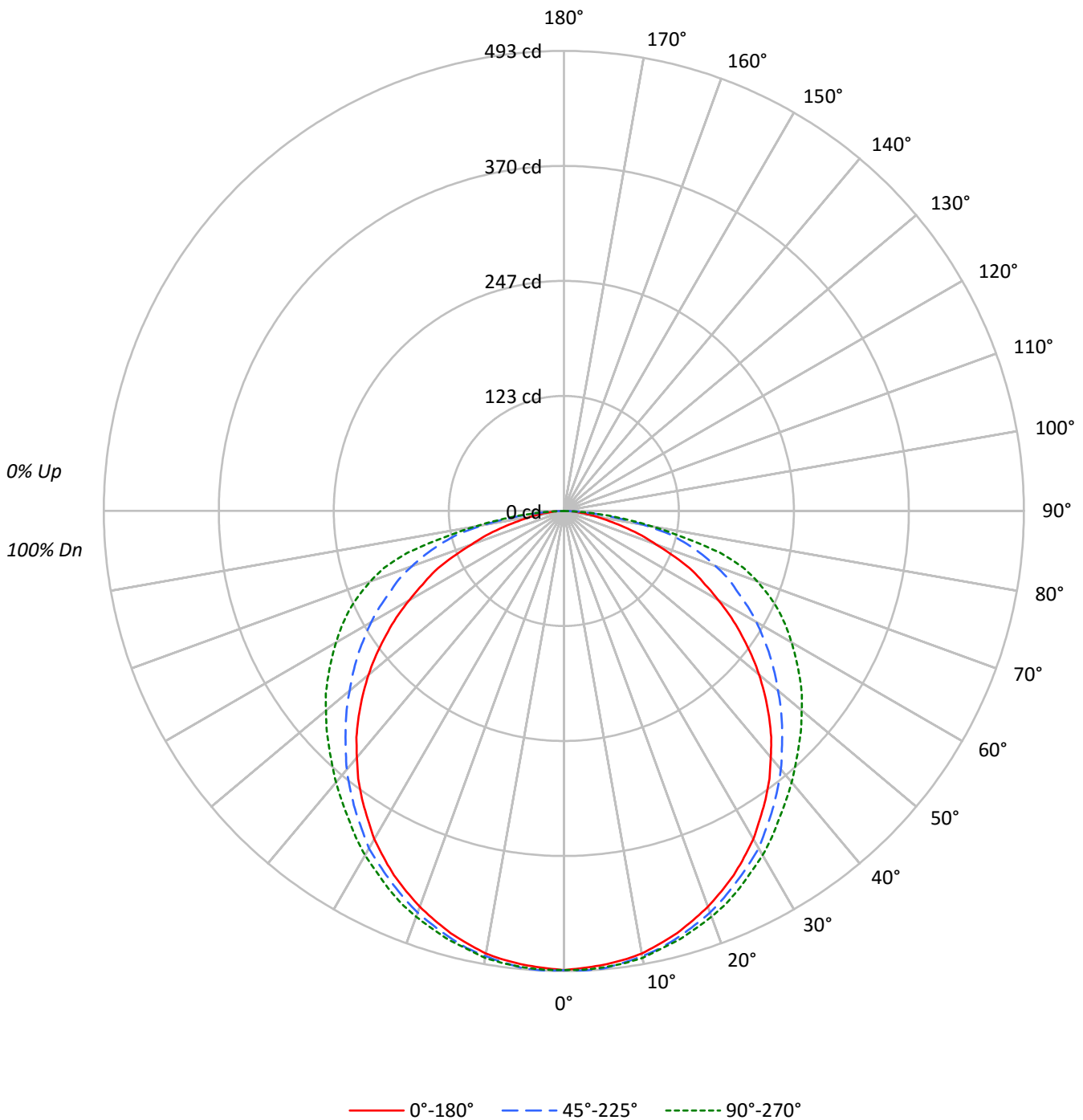
Input Watts (W): 18.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1324	1324	1324
5°	1319	1329	1326
10°	1316	1324	1329
15°	1305	1318	1326
20°	1293	1312	1325
25°	1279	1301	1324
30°	1262	1297	1324
35°	1238	1282	1322
40°	1212	1271	1334
45°	1184	1259	1356
50°	1144	1255	1393
55°	1092	1264	1446
60°	1030	1283	1517
65°	972	1309	1621
70°	831	1364	1735
75°	696	1421	1803
80°	570	1373	1505
85°	494	1019	1105



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.6	3.1
10°-20°	133.4	8.9
20°-30°	202.1	13.5
30°-40°	244.1	16.3
40°-50°	256.5	17.2
50°-60°	241.3	16.2
60°-70°	201.2	13.5
70°-80°	133.3	8.9
80°-90°	35.5	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°	382.1	25.6
0°-40°	626.2	41.9
0°-60°	1124.0	75.2
0°-90°	1494.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1494.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	492	492	492	492	492	
5°	488	489	492	492	491	46
15°	468	470	473	475	476	132
25°	431	434	438	444	446	198
35°	377	381	390	399	402	236
45°	311	316	331	348	356	240
55°	233	243	270	297	308	208
65°	153	166	206	239	254	149
75°	67	93	137	165	173	73
85°	16	24	33	36	36	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	492.0	492.0	492.0	492.0	492.0
2.5°	490.1	491.0	492.9	492.9	492.0
5°	488.2	489.1	492.0	492.0	491.0
7.5°	485.4	486.3	488.2	490.1	489.1
10°	481.6	482.5	484.4	486.3	486.3
12.5°	475.0	475.9	479.7	480.6	480.6
15°	468.4	470.3	473.1	475.0	475.9
17.5°	459.9	461.8	465.6	469.3	469.3
20°	451.4	453.3	458.0	461.8	462.7
22.5°	441.1	443.9	448.6	453.3	455.2
25°	430.7	433.5	438.2	443.9	445.8
27.5°	418.4	421.3	427.9	434.5	435.4
30°	406.2	409.0	417.5	423.2	426.0
32.5°	391.1	394.9	403.4	411.8	414.7
35°	377.0	380.7	390.2	398.7	402.4
37.5°	361.9	365.7	376.0	386.4	391.1
40°	344.9	349.6	361.9	373.2	379.8
42.5°	328.9	333.6	345.9	361.0	367.6
45°	311.0	315.7	330.8	347.8	356.2
47.5°	292.2	297.8	315.7	336.5	344.9
50°	273.3	279.9	299.7	323.3	332.7
52.5°	253.5	262.0	284.6	310.1	321.4
55°	232.8	243.2	269.5	296.9	308.2
57.5°	213.0	222.4	253.5	282.7	295.0
60°	191.3	203.6	238.4	268.6	281.8
62.5°	170.6	183.8	222.4	254.5	268.6
65°	152.7	165.9	205.5	239.4	254.5
67.5°	129.1	147.0	191.3	223.4	238.4
70°	105.6	130.1	173.4	206.4	220.5
72.5°	87.6	111.2	155.5	188.5	201.7
75°	66.9	93.3	136.7	164.9	173.4
77.5°	49.9	77.3	116.9	131.0	131.9
80°	36.8	59.4	88.6	93.3	97.1
82.5°	25.4	41.5	57.5	63.1	65.0
85°	16.0	24.5	33.0	35.8	35.8
87.5°	8.5	9.4	11.3	11.3	11.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)