

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: P308114

Luminaire Tested: **22FCZ2-24HE-UNV-L82765-HRP-CA125-W2A-U-2700K**

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: P308114
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-CA125-W2A-U-2700K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 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: 1559.0 lumens
Efficiency: N/A
Efficacy: 82.5 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

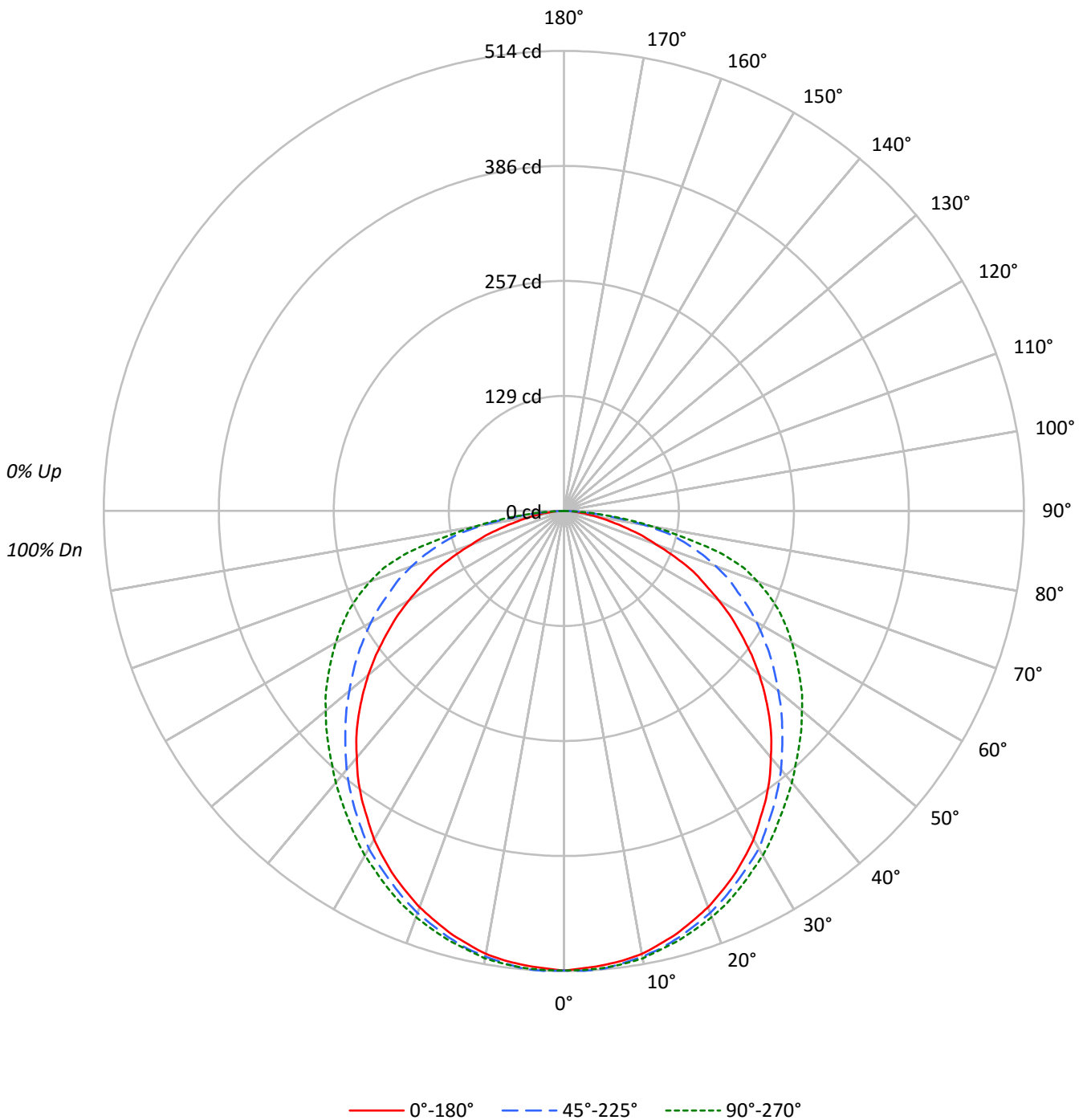
Input Watts (W): 18.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1382	1382	1382
5°	1376	1387	1384
10°	1373	1381	1387
15°	1362	1375	1383
20°	1349	1369	1383
25°	1334	1358	1381
30°	1317	1354	1381
35°	1292	1337	1379
40°	1264	1326	1392
45°	1235	1314	1415
50°	1194	1309	1454
55°	1140	1320	1509
60°	1074	1339	1583
65°	1014	1365	1691
70°	866	1424	1810
75°	726	1483	1882
80°	595	1432	1570
85°	516	1062	1155



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.7	3.1
10°-20°	139.2	8.9
20°-30°	210.9	13.5
30°-40°	254.7	16.3
40°-50°	267.6	17.2
50°-60°	251.8	16.2
60°-70°	209.9	13.5
70°-80°	139.1	8.9
80°-90°	37.1	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°	398.8	25.6
0°-40°	653.4	41.9
0°-60°	1172.9	75.2
0°-90°	1559.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1559.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	513	513	513	513	513	
5°	509	510	513	513	512	48
15°	489	491	494	496	497	138
25°	449	452	457	463	465	207
35°	393	397	407	416	420	246
45°	324	330	345	363	372	250
55°	243	254	281	310	322	217
65°	159	173	214	250	266	155
75°	70	97	143	172	181	76
85°	17	26	34	37	37	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	513.4	513.4	513.4	513.4	513.4
2.5°	511.4	512.4	514.3	514.3	513.4
5°	509.4	510.4	513.4	513.4	512.4
7.5°	506.5	507.5	509.4	511.4	510.4
10°	502.5	503.5	505.5	507.5	507.5
12.5°	495.7	496.6	500.6	501.6	501.6
15°	488.8	490.7	493.7	495.7	496.6
17.5°	479.9	481.9	485.8	489.8	489.8
20°	471.1	473.0	478.0	481.9	482.9
22.5°	460.3	463.2	468.1	473.0	475.0
25°	449.4	452.4	457.3	463.2	465.2
27.5°	436.7	439.6	446.5	453.4	454.4
30°	423.9	426.8	435.7	441.6	444.5
32.5°	408.1	412.1	420.9	429.8	432.7
35°	393.4	397.3	407.1	416.0	419.9
37.5°	377.6	381.6	392.4	403.2	408.1
40°	359.9	364.9	377.6	389.4	396.3
42.5°	343.2	348.1	360.9	376.7	383.5
45°	324.5	329.5	345.2	362.9	371.7
47.5°	304.9	310.8	329.5	351.1	359.9
50°	285.2	292.1	312.7	337.3	347.2
52.5°	264.5	273.4	297.0	323.6	335.4
55°	242.9	253.7	281.3	309.8	321.6
57.5°	222.3	232.1	264.5	295.0	307.8
60°	199.6	212.4	248.8	280.3	294.1
62.5°	178.0	191.8	232.1	265.5	280.3
65°	159.3	173.1	214.4	249.8	265.5
67.5°	134.7	153.4	199.6	233.1	248.8
70°	110.1	135.7	181.0	215.4	230.1
72.5°	91.5	116.0	162.3	196.7	210.5
75°	69.8	97.4	142.6	172.1	181.0
77.5°	52.1	80.6	121.9	136.7	137.7
80°	38.4	62.0	92.4	97.4	101.3
82.5°	26.6	43.3	60.0	65.9	67.9
85°	16.7	25.6	34.4	37.4	37.4
87.5°	8.9	9.8	11.8	11.8	11.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)