

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: P310496

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-CA08-W2A-U-5500K**

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: P310496
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-30HE-UNV-L82765-CA08-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.08" ACRYLIC SHEET
Light Source: (336) 5500K 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: 2918.0 lumens
Efficiency: N/A
Efficacy: 134.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

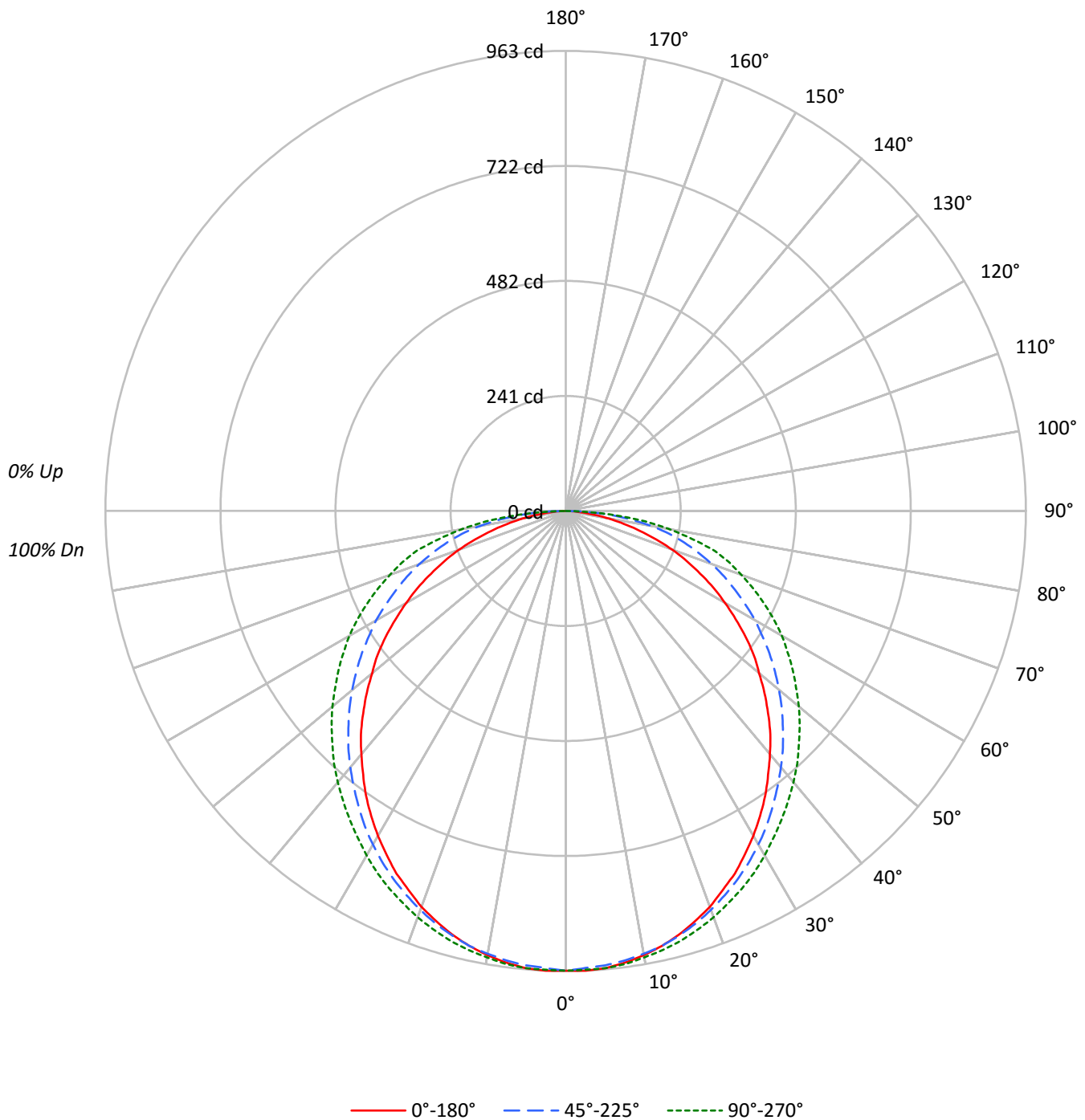
Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	100	96	92	96	92	89		92	89	87		82
2	98	89	81	75	95	87	80	74	83	78	73		80	75	71		67
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		56
4	81	68	59	52	79	67	58	52	64	57	51		62	56	50		47
5	74	61	52	45	72	60	51	44	58	50	44		56	49	43		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	64	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	37	31	57	45	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1295	1295	1295
5°	1297	1289	1297
10°	1290	1286	1296
15°	1278	1281	1297
20°	1263	1273	1296
25°	1243	1263	1295
30°	1220	1253	1294
35°	1196	1240	1294
40°	1168	1231	1303
45°	1140	1223	1314
50°	1106	1220	1333
55°	1079	1222	1360
60°	1037	1232	1407
65°	989	1245	1458
70°	937	1284	1539
75°	835	1339	1681
80°	713	1418	1718
85°	508	1405	1644



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.1	3.1
10°-20°	260.4	8.9
20°-30°	393.3	13.5
30°-40°	474.0	16.2
40°-50°	497.7	17.1
50°-60°	465.6	16.0
60°-70°	384.5	13.2
70°-80°	262.0	9.0
80°-90°	89.4	3.1
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°	744.8	25.5
0°-40°	1218.9	41.8
0°-60°	2182.1	74.8
0°-90°	2918.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2918.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	962	962	962	962	962	
5°	960	959	955	960	960	91
15°	918	919	920	929	931	259
25°	837	841	851	868	872	385
35°	728	736	755	780	788	455
45°	599	612	643	678	690	462
55°	460	478	521	564	580	410
65°	311	337	391	440	458	308
75°	161	198	258	306	323	171
85°	33	65	91	103	106	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	962.3	962.3	962.3	962.3	962.3
2.5°	963.3	962.3	957.5	962.3	961.4
5°	960.4	959.4	954.6	960.4	960.4
7.5°	953.6	953.6	948.8	955.6	956.5
10°	943.9	943.9	941.0	948.8	948.8
12.5°	932.3	932.3	932.3	940.1	941.0
15°	917.8	918.8	919.7	929.4	931.4
17.5°	900.4	902.3	905.2	916.8	918.8
20°	882.0	883.9	888.8	902.3	905.2
22.5°	858.7	863.6	870.4	885.8	888.8
25°	837.4	841.3	851.0	867.5	872.3
27.5°	811.3	817.1	829.7	847.1	853.9
30°	785.2	791.0	806.5	826.8	832.6
32.5°	757.1	765.8	782.3	803.6	810.3
35°	728.0	735.8	755.1	780.3	788.1
37.5°	696.1	706.7	728.0	755.1	764.8
40°	665.1	676.7	700.9	730.0	741.6
42.5°	634.1	645.7	672.9	705.8	717.4
45°	599.3	611.9	642.8	677.7	690.3
47.5°	564.4	579.9	613.8	650.6	664.1
50°	528.6	546.0	582.8	621.5	637.0
52.5°	496.7	513.1	551.8	593.5	608.0
55°	459.9	478.3	520.9	563.5	579.9
57.5°	422.1	442.4	487.9	534.4	550.9
60°	385.3	407.6	457.9	504.4	522.8
62.5°	349.5	371.8	424.0	472.5	490.8
65°	310.8	336.9	391.1	440.5	457.9
67.5°	274.0	302.1	359.2	407.6	425.0
70°	238.2	265.3	326.3	373.7	391.1
72.5°	199.4	230.4	291.4	340.8	359.2
75°	160.7	197.5	257.5	305.9	323.4
77.5°	124.9	162.6	222.7	262.4	271.1
80°	92.0	130.7	183.0	211.1	221.7
82.5°	59.1	97.8	139.4	159.7	168.5
85°	32.9	64.9	91.0	102.6	106.5
87.5°	13.6	28.1	36.8	41.6	41.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)