

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: P310513

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-CP125-W2A-U-5000K**

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: P310513
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-CP125-W2A-U-5000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (336) 5000K 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: 2824.0 lumens
Efficiency: N/A
Efficacy: 130.7 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

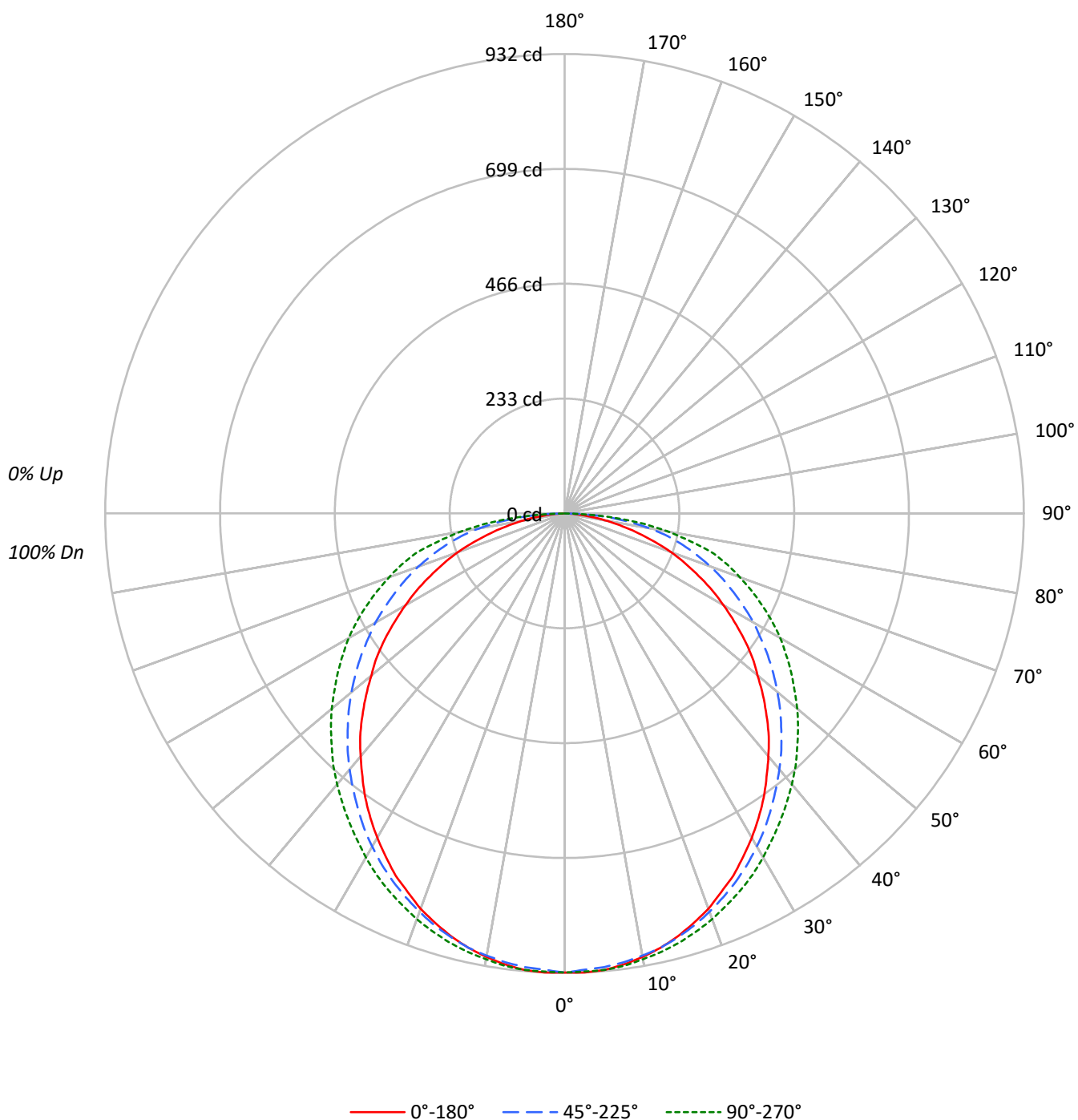
Input Watts (W): 21.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1253	1253	1253
5°	1255	1248	1255
10°	1248	1244	1254
15°	1237	1240	1255
20°	1222	1232	1254
25°	1203	1223	1253
30°	1181	1213	1252
35°	1157	1200	1253
40°	1131	1192	1261
45°	1104	1184	1271
50°	1071	1181	1290
55°	1044	1183	1316
60°	1003	1193	1362
65°	958	1205	1411
70°	907	1242	1489
75°	808	1295	1627
80°	690	1372	1663
85°	492	1360	1592



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.1	3.1
10°-20°	252.0	8.9
20°-30°	380.7	13.5
30°-40°	458.8	16.2
40°-50°	481.6	17.1
50°-60°	450.6	16.0
60°-70°	372.1	13.2
70°-80°	253.6	9.0
80°-90°	86.5	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°	720.8	25.5
0°-40°	1179.6	41.8
0°-60°	2111.9	74.8
0°-90°	2824.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2824.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	931	931	931	931	931	
5°	930	928	924	930	930	88
15°	888	889	890	900	901	250
25°	810	814	824	840	844	373
35°	705	712	731	755	763	440
45°	580	592	622	656	668	447
55°	445	463	504	545	561	397
65°	301	326	378	426	443	298
75°	156	191	249	296	313	166
85°	32	63	88	99	103	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	931.3	931.3	931.3	931.3	931.3
2.5°	932.3	931.3	926.6	931.3	930.4
5°	929.5	928.5	923.8	929.5	929.5
7.5°	922.9	922.9	918.2	924.8	925.7
10°	913.5	913.5	910.7	918.2	918.2
12.5°	902.3	902.3	902.3	909.8	910.7
15°	888.2	889.2	890.1	899.5	901.3
17.5°	871.4	873.2	876.1	887.3	889.2
20°	853.6	855.4	860.1	873.2	876.1
22.5°	831.1	835.8	842.3	857.3	860.1
25°	810.5	814.2	823.6	839.5	844.2
27.5°	785.2	790.8	803.0	819.8	826.4
30°	759.9	765.5	780.5	800.2	805.8
32.5°	732.7	741.1	757.1	777.7	784.2
35°	704.6	712.1	730.8	755.2	762.7
37.5°	673.7	684.0	704.6	730.8	740.2
40°	643.7	654.9	678.4	706.5	717.7
42.5°	613.7	624.9	651.2	683.0	694.3
45°	580.0	592.2	622.1	655.9	668.0
47.5°	546.2	561.2	594.0	629.6	642.7
50°	511.6	528.4	564.0	601.5	616.5
52.5°	480.7	496.6	534.1	574.4	588.4
55°	445.1	462.9	504.1	545.3	561.2
57.5°	408.5	428.2	472.2	517.2	533.1
60°	372.9	394.5	443.2	488.2	506.0
62.5°	338.2	359.8	410.4	457.2	475.0
65°	300.8	326.1	378.5	426.3	443.2
67.5°	265.2	292.3	347.6	394.5	411.3
70°	230.5	256.7	315.8	361.7	378.5
72.5°	193.0	223.0	282.0	329.8	347.6
75°	155.5	191.1	249.2	296.1	312.9
77.5°	120.9	157.4	215.5	253.9	262.3
80°	89.0	126.5	177.1	204.3	214.6
82.5°	57.2	94.6	134.9	154.6	163.0
85°	31.9	62.8	88.1	99.3	103.1
87.5°	13.1	27.2	35.6	40.3	40.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)