

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: P310516

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-CP125-W2A-U-6500K**

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: P310516
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-6500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (336) 6500K 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: 2867.0 lumens
Efficiency: N/A
Efficacy: 130.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

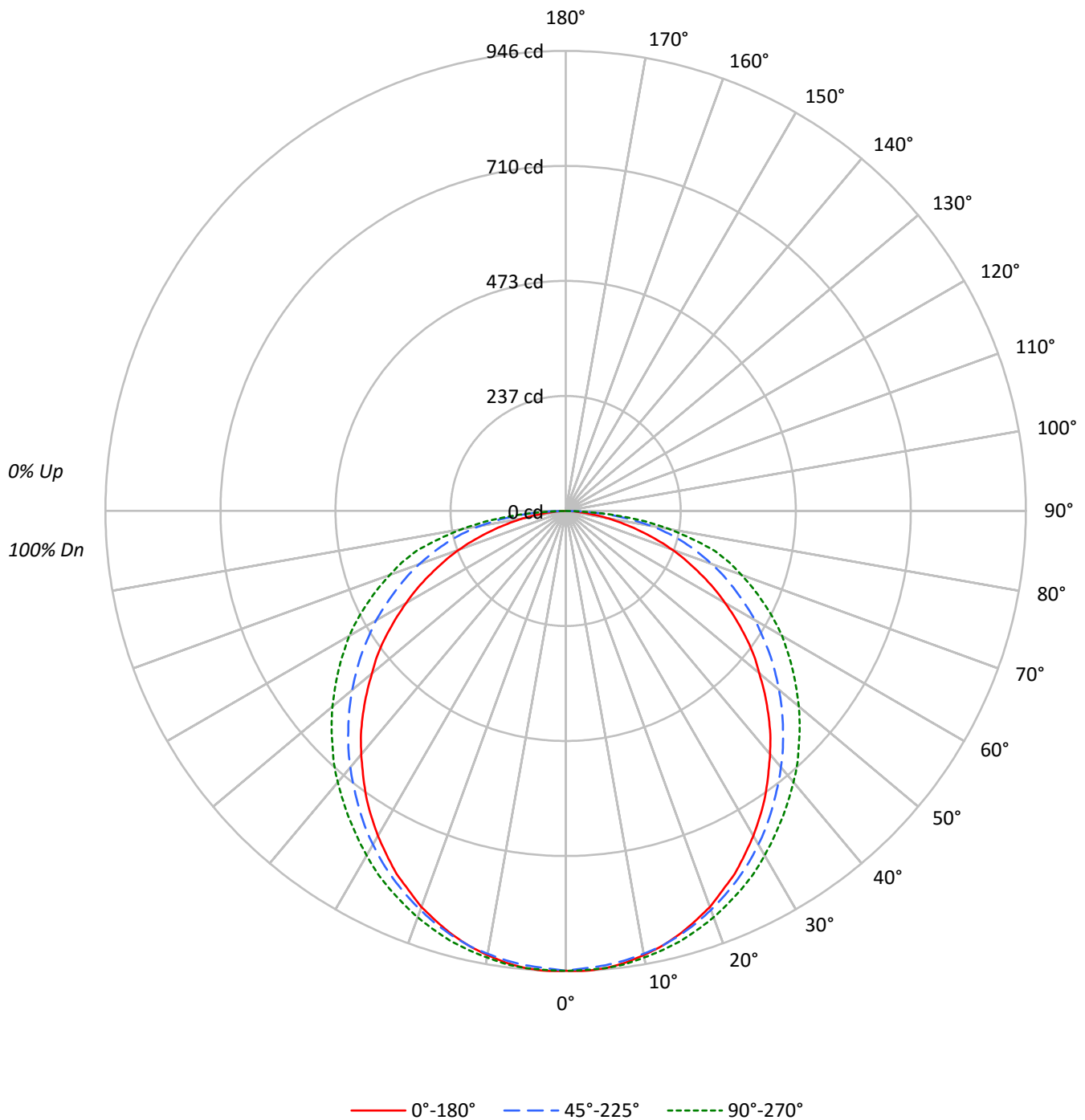
Input Watts (W): 22
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1272	1272	1272
5°	1274	1267	1274
10°	1267	1263	1274
15°	1256	1259	1275
20°	1241	1250	1273
25°	1222	1241	1272
30°	1198	1231	1271
35°	1175	1219	1272
40°	1148	1210	1280
45°	1120	1202	1290
50°	1087	1199	1310
55°	1060	1201	1337
60°	1019	1211	1382
65°	972	1223	1432
70°	921	1261	1512
75°	821	1315	1652
80°	700	1393	1688
85°	499	1380	1615



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.5	3.1
10°-20°	255.9	8.9
20°-30°	386.5	13.5
30°-40°	465.8	16.2
40°-50°	489.0	17.1
50°-60°	457.5	16.0
60°-70°	377.8	13.2
70°-80°	257.4	9.0
80°-90°	87.8	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°	731.8	25.5
0°-40°	1197.6	41.8
0°-60°	2144.0	74.8
0°-90°	2867.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2867.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	946	946	946	946	946	
5°	944	943	938	944	944	90
15°	902	903	904	913	915	254
25°	823	827	836	852	857	379
35°	715	723	742	767	774	447
45°	589	601	632	666	678	454
55°	452	470	512	554	570	403
65°	305	331	384	433	450	303
75°	158	194	253	301	318	168
85°	32	64	89	101	105	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	945.5	945.5	945.5	945.5	945.5
2.5°	946.5	945.5	940.8	945.5	944.6
5°	943.6	942.7	937.9	943.6	943.6
7.5°	937.0	937.0	932.2	938.9	939.8
10°	927.4	927.4	924.6	932.2	932.2
12.5°	916.0	916.0	916.0	923.6	924.6
15°	901.8	902.7	903.7	913.2	915.1
17.5°	884.6	886.5	889.4	900.8	902.7
20°	866.6	868.5	873.2	886.5	889.4
22.5°	843.7	848.5	855.1	870.4	873.2
25°	822.8	826.6	836.1	852.3	857.0
27.5°	797.1	802.8	815.2	832.3	839.0
30°	771.4	777.1	792.4	812.3	818.0
32.5°	743.9	752.4	768.6	789.5	796.2
35°	715.3	722.9	742.0	766.7	774.3
37.5°	683.9	694.4	715.3	742.0	751.5
40°	653.5	664.9	688.7	717.2	728.6
42.5°	623.0	634.5	661.1	693.4	704.9
45°	588.8	601.2	631.6	665.9	678.2
47.5°	554.6	569.8	603.1	639.2	652.5
50°	519.4	536.5	572.6	610.7	625.9
52.5°	488.0	504.1	542.2	583.1	597.4
55°	451.8	469.9	511.8	553.6	569.8
57.5°	414.7	434.7	479.4	525.1	541.2
60°	378.6	400.5	449.9	495.6	513.7
62.5°	343.4	365.3	416.6	464.2	482.3
65°	305.3	331.0	384.3	432.8	449.9
67.5°	269.2	296.8	352.9	400.5	417.6
70°	234.0	260.6	320.6	367.2	384.3
72.5°	196.0	226.4	286.3	334.8	352.9
75°	157.9	194.0	253.0	300.6	317.7
77.5°	122.7	159.8	218.8	257.8	266.3
80°	90.4	128.4	179.8	207.4	217.8
82.5°	58.0	96.1	137.0	157.0	165.5
85°	32.3	63.7	89.4	100.8	104.6
87.5°	13.3	27.6	36.1	40.9	40.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)