

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: P309379

Luminaire Tested: **24FCZ2-40-UNV-L82765-HRP-CA125-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: P309379
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-40-UNV-L82765-HRP-CA125-W2A-U-5000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 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: 2880.0 lumens
Efficiency: N/A
Efficacy: 86.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

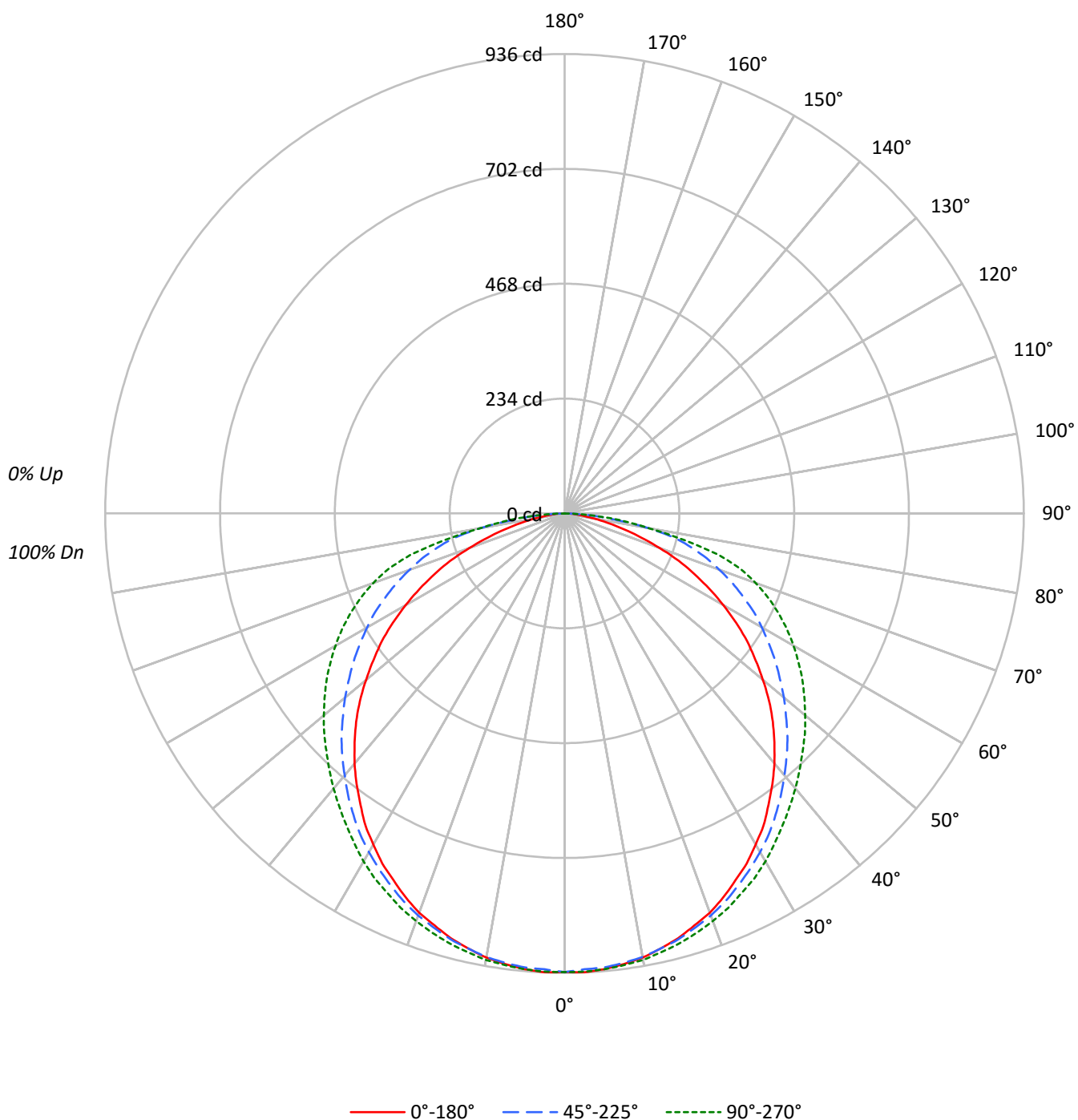
Input Watts (W): 33.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90		92	90	87		82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	59		56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	50		48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	36	30	57	44	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	24		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1257	1257	1257
5°	1259	1254	1259
10°	1255	1254	1262
15°	1248	1251	1263
20°	1240	1248	1265
25°	1224	1242	1267
30°	1210	1238	1272
35°	1190	1232	1273
40°	1169	1224	1286
45°	1142	1223	1305
50°	1105	1222	1340
55°	1066	1230	1389
60°	1006	1249	1450
65°	929	1278	1532
70°	811	1323	1632
75°	658	1392	1686
80°	486	1364	1364
85°	372	1005	1135



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.5	3.1
10°-20°	254.2	8.8
20°-30°	387.0	13.4
30°-40°	469.9	16.3
40°-50°	496.4	17.2
50°-60°	468.4	16.3
60°-70°	389.5	13.5
70°-80°	256.2	8.9
80°-90°	69.8	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°	729.7	25.3
0°-40°	1199.6	41.7
0°-60°	2164.4	75.2
0°-90°	2880.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2880.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	934	934	934	934	934	
5°	932	932	928	932	932	89
15°	896	897	898	907	907	253
25°	825	830	837	851	854	380
35°	725	733	750	769	775	454
45°	600	612	643	674	686	462
55°	454	474	524	574	592	405
65°	292	326	402	461	481	288
75°	127	184	268	317	324	136
85°	24	53	65	72	74	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	934.4	934.4	934.4	934.4	934.4
2.5°	935.6	934.4	929.6	934.4	934.4
5°	932.0	932.0	928.4	932.0	932.0
7.5°	926.0	926.0	923.6	928.4	928.4
10°	918.7	918.7	917.5	923.6	923.6
12.5°	907.9	909.1	907.9	915.1	915.1
15°	895.8	897.0	898.2	906.7	906.7
17.5°	880.2	882.6	885.0	894.6	895.8
20°	865.7	866.9	871.7	882.6	883.8
22.5°	846.4	850.0	856.0	866.9	870.5
25°	824.7	829.5	836.8	851.2	853.6
27.5°	804.2	807.8	817.5	833.1	838.0
30°	778.9	784.9	797.0	812.6	818.7
32.5°	754.8	760.8	775.3	792.1	797.0
35°	724.6	733.1	749.9	769.2	775.3
37.5°	695.7	704.1	724.6	746.3	753.6
40°	665.5	675.2	696.9	722.2	731.9
42.5°	633.0	646.3	670.4	698.1	709.0
45°	600.4	612.5	642.6	674.0	686.0
47.5°	565.5	579.9	612.5	649.9	664.3
50°	528.1	546.2	583.6	624.6	640.2
52.5°	490.7	511.2	553.4	599.2	616.1
55°	454.5	473.8	524.5	573.9	592.0
57.5°	414.8	438.9	494.3	547.4	565.5
60°	373.8	400.3	464.2	519.7	538.9
62.5°	332.8	362.9	435.3	490.7	511.2
65°	291.8	325.5	401.5	460.6	481.1
67.5°	252.0	289.4	370.2	429.2	449.7
70°	206.2	253.2	336.4	394.3	414.8
72.5°	164.0	218.2	303.8	358.1	376.2
75°	126.6	184.5	267.7	317.1	324.3
77.5°	92.8	150.7	230.3	247.2	248.4
80°	62.7	120.6	176.0	173.6	176.0
82.5°	41.0	90.4	110.9	124.2	125.4
85°	24.1	53.1	65.1	72.3	73.5
87.5°	12.1	18.1	22.9	24.1	26.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)