

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: P309345

Luminaire Tested: **24FCZ2-40HE-UNV-L82765-HRP-CP125-W2A-U-5700K**

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: P309345
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: 24FCZ2-40HE-UNV-L82765-HRP-CP125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125"
POLYCARB SHEET
Light Source: (336) 5700K 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: 2877.0 lumens
Efficiency: N/A
Efficacy: 91.9 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

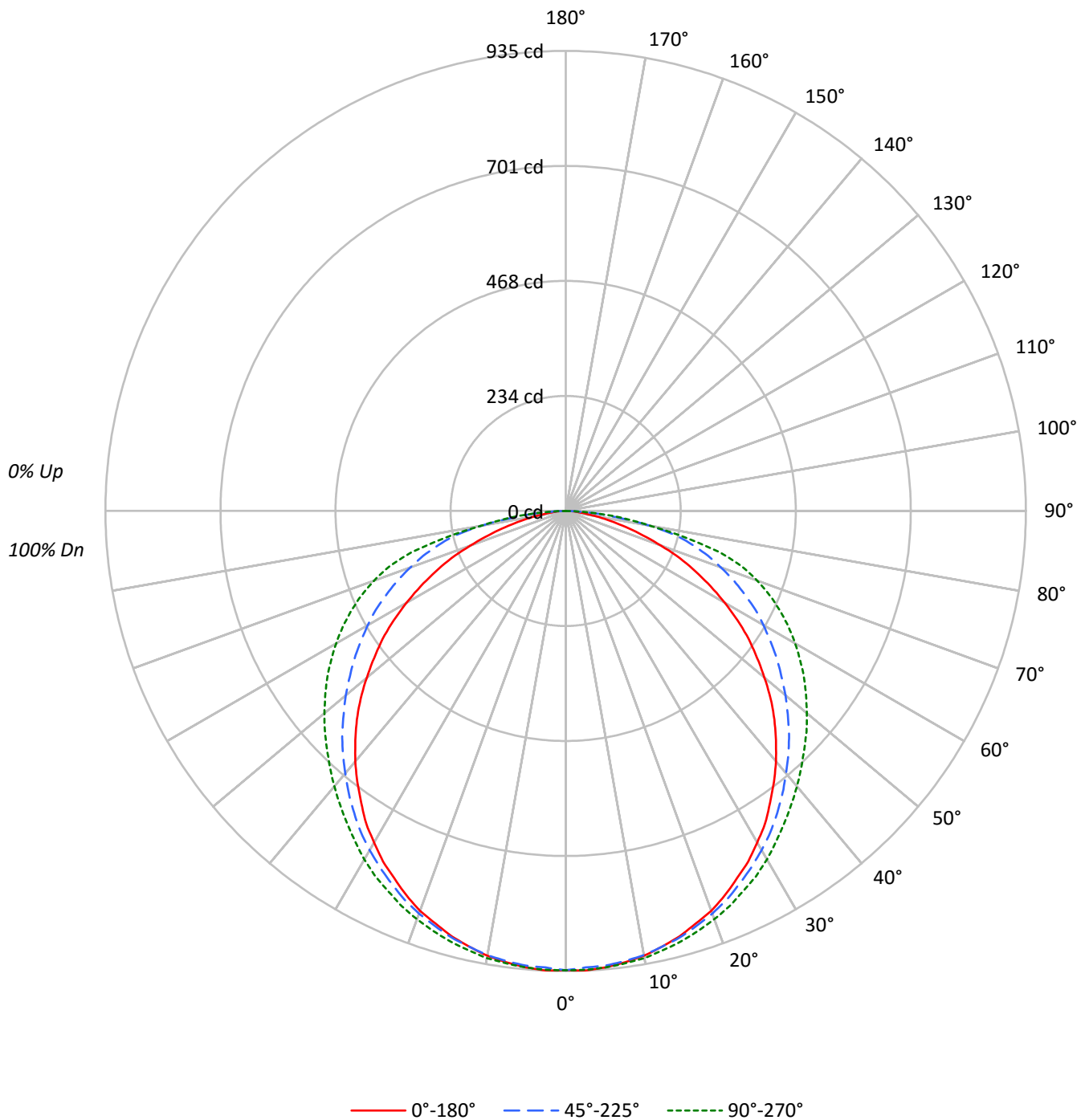
Input Watts (W): 31.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1256	1256	1256
5°	1257	1253	1257
10°	1254	1252	1260
15°	1247	1250	1262
20°	1238	1247	1264
25°	1223	1241	1266
30°	1209	1237	1271
35°	1189	1231	1272
40°	1168	1223	1284
45°	1141	1222	1304
50°	1104	1220	1339
55°	1065	1229	1387
60°	1005	1248	1449
65°	928	1277	1530
70°	810	1322	1630
75°	658	1390	1684
80°	485	1362	1362
85°	372	1003	1135



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.4	3.1
10°-20°	253.9	8.8
20°-30°	386.6	13.4
30°-40°	469.4	16.3
40°-50°	495.9	17.2
50°-60°	467.9	16.3
60°-70°	389.1	13.5
70°-80°	256.0	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°	728.9	25.3
0°-40°	1198.3	41.7
0°-60°	2162.2	75.2
0°-90°	2877.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2877.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	933	933	933	933	933	
5°	931	931	927	931	931	88
15°	895	896	897	906	906	252
25°	824	829	836	850	853	380
35°	724	732	749	768	774	453
45°	600	612	642	673	685	462
55°	454	473	524	573	591	404
65°	292	325	401	460	481	288
75°	126	184	267	317	324	136
85°	24	53	65	72	74	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	933.4	933.4	933.4	933.4	933.4
2.5°	934.6	933.4	928.6	933.4	933.4
5°	931.0	931.0	927.4	931.0	931.0
7.5°	925.0	925.0	922.6	927.4	927.4
10°	917.8	917.8	916.6	922.6	922.6
12.5°	906.9	908.2	906.9	914.2	914.2
15°	894.9	896.1	897.3	905.7	905.7
17.5°	879.2	881.7	884.1	893.7	894.9
20°	864.8	866.0	870.8	881.7	882.9
22.5°	845.5	849.1	855.2	866.0	869.6
25°	823.8	828.7	835.9	850.3	852.7
27.5°	803.4	807.0	816.6	832.3	837.1
30°	778.1	784.1	796.1	811.8	817.8
32.5°	754.0	760.0	774.5	791.3	796.1
35°	723.9	732.3	749.2	768.4	774.5
37.5°	695.0	703.4	723.9	745.6	752.8
40°	664.9	674.5	696.2	721.5	731.1
42.5°	632.3	645.6	669.7	697.4	708.2
45°	599.8	611.9	642.0	673.3	685.3
47.5°	564.9	579.3	611.9	649.2	663.6
50°	527.5	545.6	583.0	623.9	639.6
52.5°	490.2	510.7	552.8	598.6	615.5
55°	454.1	473.3	523.9	573.3	591.4
57.5°	414.3	438.4	493.8	546.8	564.9
60°	373.4	399.9	463.7	519.1	538.4
62.5°	332.4	362.5	434.8	490.2	510.7
65°	291.5	325.2	401.1	460.1	480.6
67.5°	251.7	289.1	369.8	428.8	449.3
70°	206.0	252.9	336.0	393.9	414.3
72.5°	163.8	218.0	303.5	357.7	375.8
75°	126.5	184.3	267.4	316.8	324.0
77.5°	92.7	150.6	230.0	246.9	248.1
80°	62.6	120.4	175.8	173.4	175.8
82.5°	41.0	90.3	110.8	124.1	125.3
85°	24.1	53.0	65.0	72.3	73.5
87.5°	12.0	18.1	22.9	24.1	26.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)