

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: P309342

Luminaire Tested: **24FCZ2-40HE-UNV-L82765-HRP-CP125-W2A-U-4500K**

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: P309342
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-4500K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB SHEET
Light Source: (336) 4500K 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: 2804.0 lumens
Efficiency: N/A
Efficacy: 90.5 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

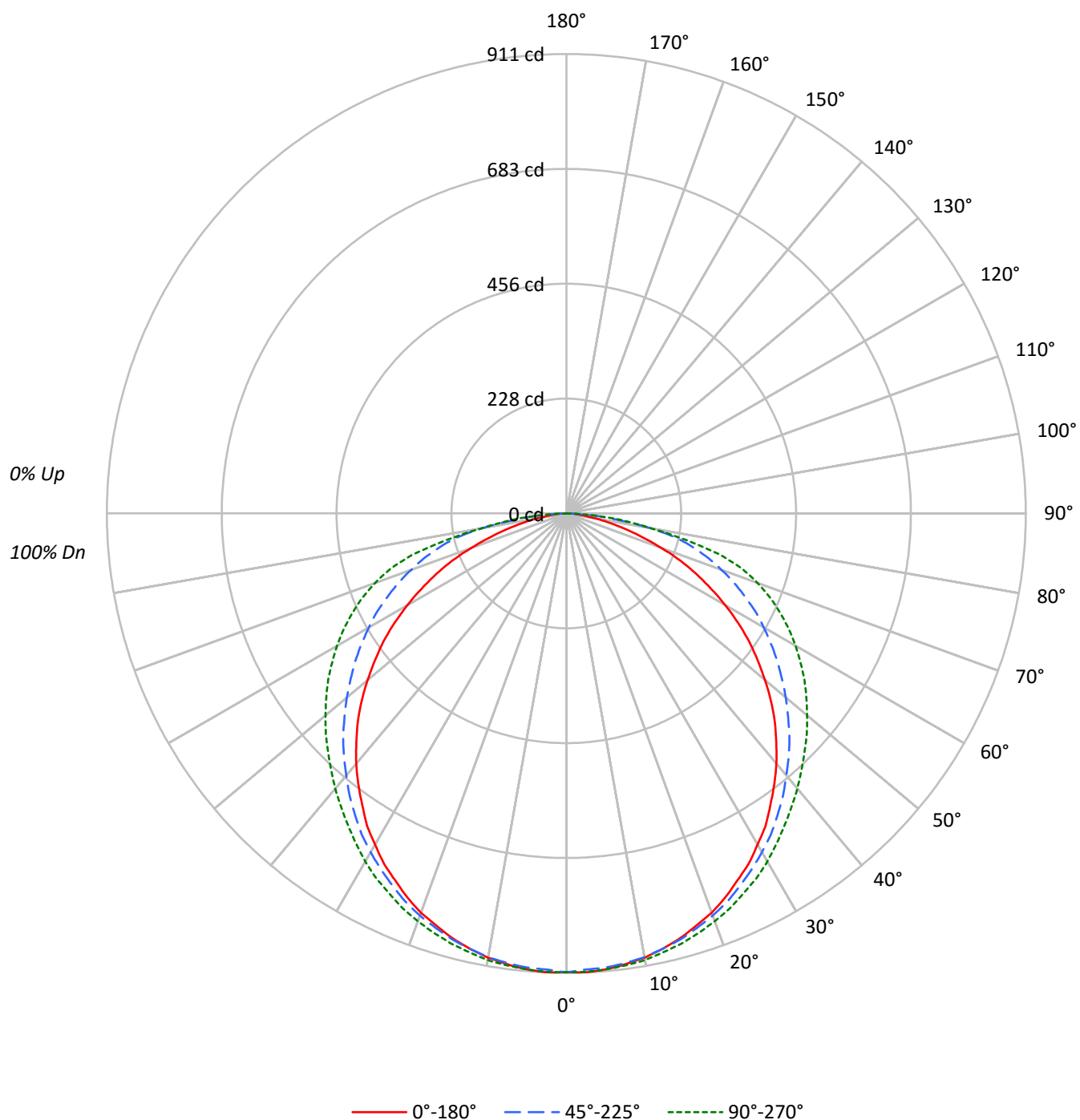
Input Watts (W): 31
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1224	1224	1224
5°	1226	1221	1226
10°	1222	1220	1229
15°	1215	1218	1230
20°	1207	1215	1232
25°	1192	1209	1234
30°	1178	1205	1238
35°	1159	1199	1240
40°	1138	1192	1251
45°	1112	1191	1271
50°	1076	1189	1305
55°	1038	1198	1352
60°	979	1216	1412
65°	904	1245	1491
70°	790	1288	1589
75°	641	1355	1642
80°	473	1328	1328
85°	363	979	1105



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.2	3.1
10°-20°	247.5	8.8
20°-30°	376.8	13.4
30°-40°	457.5	16.3
40°-50°	483.3	17.2
50°-60°	456.1	16.3
60°-70°	379.2	13.5
70°-80°	249.5	8.9
80°-90°	68.0	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°	710.4	25.3
0°-40°	1167.9	41.7
0°-60°	2107.3	75.2
0°-90°	2804.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2804.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	910	910	910	910	910	
5°	907	907	904	907	907	86
15°	872	873	874	883	883	246
25°	803	808	815	829	831	370
35°	706	714	730	749	755	442
45°	585	596	626	656	668	450
55°	443	461	511	559	576	394
65°	284	317	391	448	468	281
75°	123	180	261	309	316	133
85°	24	52	63	70	72	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	909.8	909.8	909.8	909.8	909.8
2.5°	910.9	909.8	905.1	909.8	909.8
5°	907.4	907.4	903.9	907.4	907.4
7.5°	901.5	901.5	899.2	903.9	903.9
10°	894.5	894.5	893.3	899.2	899.2
12.5°	883.9	885.1	883.9	891.0	891.0
15°	872.2	873.4	874.5	882.8	882.8
17.5°	856.9	859.3	861.6	871.0	872.2
20°	842.8	844.0	848.7	859.3	860.5
22.5°	824.1	827.6	833.5	844.0	847.5
25°	802.9	807.6	814.7	828.8	831.1
27.5°	783.0	786.5	795.9	811.2	815.8
30°	758.3	764.2	775.9	791.2	797.1
32.5°	734.9	740.7	754.8	771.2	775.9
35°	705.5	713.7	730.2	748.9	754.8
37.5°	677.3	685.5	705.5	726.6	733.7
40°	648.0	657.4	678.5	703.2	712.5
42.5°	616.3	629.2	652.7	679.7	690.2
45°	584.6	596.3	625.7	656.2	667.9
47.5°	550.6	564.6	596.3	632.7	646.8
50°	514.2	531.8	568.2	608.1	623.3
52.5°	477.8	497.7	538.8	583.4	599.9
55°	442.6	461.3	510.6	558.8	576.4
57.5°	403.8	427.3	481.3	532.9	550.6
60°	363.9	389.7	451.9	505.9	524.7
62.5°	324.0	353.3	423.8	477.8	497.7
65°	284.1	316.9	390.9	448.4	468.4
67.5°	245.3	281.7	360.4	417.9	437.9
70°	200.7	246.5	327.5	383.9	403.8
72.5°	159.6	212.5	295.8	348.6	366.3
75°	123.3	179.6	260.6	308.7	315.8
77.5°	90.4	146.7	224.2	240.6	241.8
80°	61.0	117.4	171.4	169.0	171.4
82.5°	39.9	88.0	108.0	120.9	122.1
85°	23.5	51.7	63.4	70.4	71.6
87.5°	11.7	17.6	22.3	23.5	25.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)