

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: P309787

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-HRP-CA125-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: P309787
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: 24FCZ2-75HE-UNV-L82765-HRP-CA125-W2A-U-6500K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125"
ACRYLIC 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: 5445.0 lumens
Efficiency: N/A
Efficacy: 83.0 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

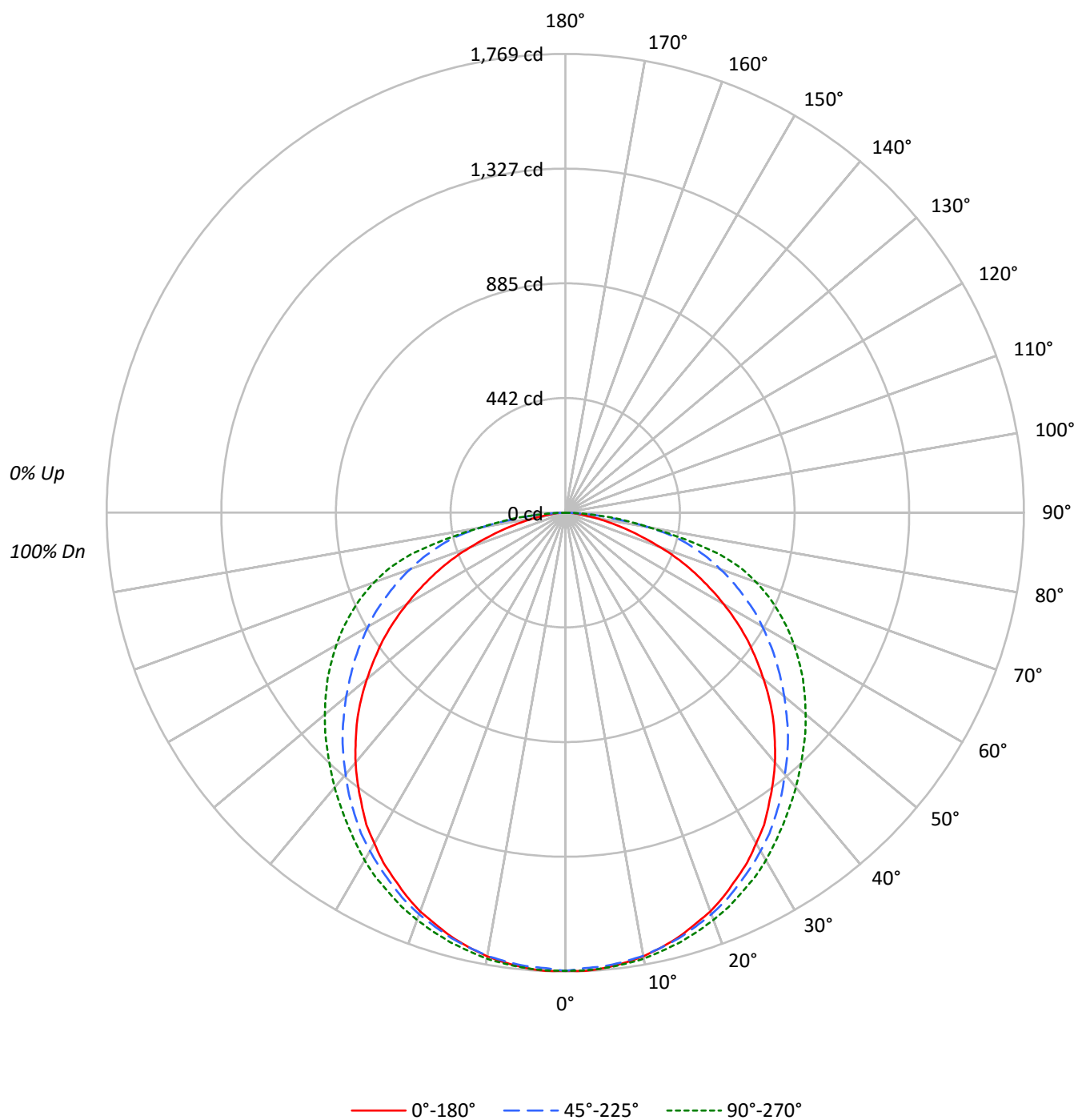
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2377	2377	2377
5°	2380	2371	2380
10°	2373	2370	2386
15°	2359	2366	2388
20°	2343	2360	2392
25°	2315	2349	2396
30°	2288	2341	2405
35°	2250	2329	2407
40°	2210	2314	2430
45°	2160	2312	2468
50°	2090	2309	2534
55°	2016	2326	2625
60°	1902	2362	2742
65°	1756	2417	2896
70°	1533	2502	3085
75°	1245	2631	3188
80°	918	2579	2579
85°	704	1900	2147



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.4	3.1
10°-20°	480.6	8.8
20°-30°	731.6	13.4
30°-40°	888.4	16.3
40°-50°	938.6	17.2
50°-60°	885.6	16.3
60°-70°	736.4	13.5
70°-80°	484.5	8.9
80°-90°	132.1	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°	1379.6	25.3
0°-40°	2267.9	41.7
0°-60°	4092.1	75.2
0°-90°	5445.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5445.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1767	1767	1767	1767	1767	
5°	1762	1762	1755	1762	1762	167
15°	1694	1696	1698	1714	1714	478
25°	1559	1568	1582	1609	1614	719
35°	1370	1386	1418	1454	1466	858
45°	1135	1158	1215	1274	1297	874
55°	859	896	992	1085	1119	765
65°	552	616	759	871	910	545
75°	239	349	506	600	613	258
85°	46	100	123	137	139	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1766.6	1766.6	1766.6	1766.6	1766.6
2.5°	1768.9	1766.6	1757.5	1766.6	1766.6
5°	1762.1	1762.1	1755.2	1762.1	1762.1
7.5°	1750.7	1750.7	1746.1	1755.2	1755.2
10°	1737.0	1737.0	1734.7	1746.1	1746.1
12.5°	1716.5	1718.8	1716.5	1730.2	1730.2
15°	1693.7	1696.0	1698.2	1714.2	1714.2
17.5°	1664.1	1668.6	1673.2	1691.4	1693.7
20°	1636.7	1639.0	1648.1	1668.6	1670.9
22.5°	1600.2	1607.1	1618.5	1639.0	1645.8
25°	1559.2	1568.3	1582.0	1609.3	1613.9
27.5°	1520.4	1527.3	1545.5	1575.2	1584.3
30°	1472.6	1484.0	1506.8	1536.4	1547.8
32.5°	1427.0	1438.4	1465.7	1497.7	1506.8
35°	1370.0	1386.0	1417.9	1454.3	1465.7
37.5°	1315.3	1331.2	1370.0	1411.0	1424.7
40°	1258.3	1276.5	1317.6	1365.4	1383.7
42.5°	1196.8	1221.8	1267.4	1319.8	1340.4
45°	1135.2	1158.0	1215.0	1274.3	1297.1
47.5°	1069.1	1096.5	1158.0	1228.7	1256.0
50°	998.4	1032.6	1103.3	1180.8	1210.4
52.5°	927.8	966.5	1046.3	1132.9	1164.8
55°	859.4	895.9	991.6	1085.1	1119.2
57.5°	784.2	829.7	934.6	1034.9	1069.1
60°	706.7	756.8	877.6	982.5	1018.9
62.5°	629.1	686.1	822.9	927.8	966.5
65°	551.6	615.5	759.1	870.8	909.5
67.5°	476.4	547.1	699.8	811.5	850.3
70°	389.8	478.7	636.0	745.4	784.2
72.5°	310.0	412.6	574.4	677.0	711.2
75°	239.4	348.8	506.1	599.5	613.2
77.5°	175.5	284.9	435.4	467.3	469.6
80°	118.5	228.0	332.8	328.3	332.8
82.5°	77.5	171.0	209.7	234.8	237.1
85°	45.6	100.3	123.1	136.8	139.1
87.5°	22.8	34.2	43.3	45.6	50.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)