

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: P309781

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-HRP-CA125-W2A-U-3500K**

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: P309781
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-3500K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 3500K 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: 5088.0 lumens
Efficiency: N/A
Efficacy: 80.6 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

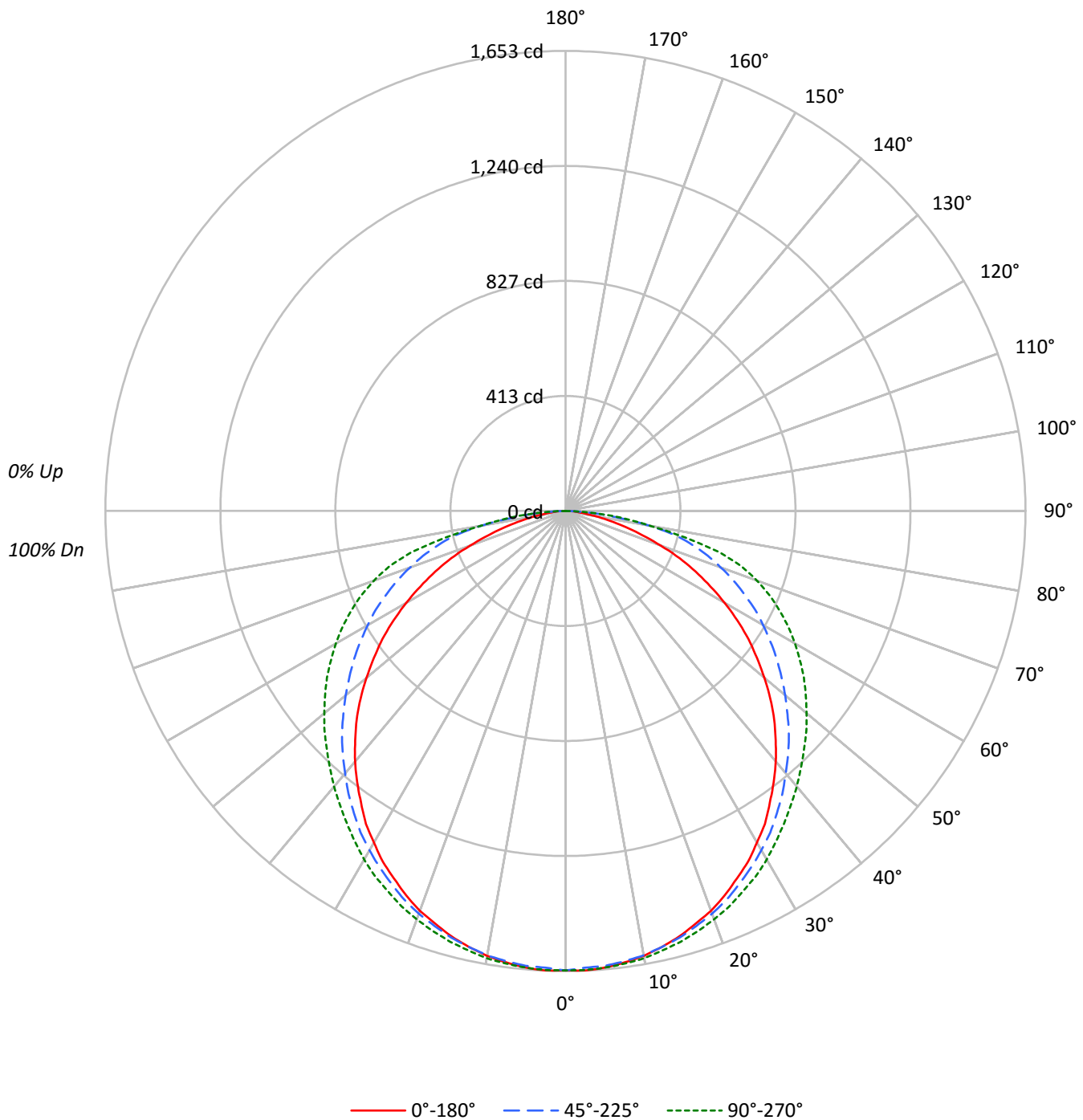
Input Watts (W): 63.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2221	2221	2221
5°	2224	2215	2224
10°	2218	2215	2229
15°	2204	2210	2231
20°	2190	2205	2236
25°	2163	2195	2239
30°	2138	2188	2247
35°	2103	2176	2250
40°	2065	2162	2271
45°	2019	2160	2306
50°	1953	2158	2368
55°	1884	2174	2453
60°	1777	2207	2562
65°	1641	2258	2706
70°	1433	2338	2882
75°	1163	2458	2979
80°	859	2410	2410
85°	658	1775	2005



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.4	3.1
10°-20°	449.1	8.8
20°-30°	683.7	13.4
30°-40°	830.1	16.3
40°-50°	877.0	17.2
50°-60°	827.6	16.3
60°-70°	688.1	13.5
70°-80°	452.7	8.9
80°-90°	123.4	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°	1289.1	25.3
0°-40°	2119.2	41.7
0°-60°	3823.8	75.2
0°-90°	5088.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5088.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1651	1651	1651	1651	1651	
5°	1646	1646	1640	1646	1646	156
15°	1583	1585	1587	1602	1602	446
25°	1457	1466	1478	1504	1508	672
35°	1280	1295	1325	1359	1370	801
45°	1061	1082	1135	1191	1212	817
55°	803	837	927	1014	1046	715
65°	516	575	709	814	850	510
75°	224	326	473	560	573	241
85°	43	94	115	128	130	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1650.8	1650.8	1650.8	1650.8	1650.8
2.5°	1652.9	1650.8	1642.3	1650.8	1650.8
5°	1646.5	1646.5	1640.2	1646.5	1646.5
7.5°	1635.9	1635.9	1631.6	1640.2	1640.2
10°	1623.1	1623.1	1621.0	1631.6	1631.6
12.5°	1603.9	1606.1	1603.9	1616.7	1616.7
15°	1582.6	1584.8	1586.9	1601.8	1601.8
17.5°	1555.0	1559.2	1563.5	1580.5	1582.6
20°	1529.4	1531.5	1540.0	1559.2	1561.3
22.5°	1495.3	1501.7	1512.4	1531.5	1537.9
25°	1457.0	1465.5	1478.3	1503.8	1508.1
27.5°	1420.8	1427.1	1444.2	1471.9	1480.4
30°	1376.0	1386.7	1408.0	1435.7	1446.3
32.5°	1333.4	1344.1	1369.6	1399.5	1408.0
35°	1280.2	1295.1	1324.9	1359.0	1369.6
37.5°	1229.1	1244.0	1280.2	1318.5	1331.3
40°	1175.8	1192.8	1231.2	1275.9	1293.0
42.5°	1118.3	1141.7	1184.3	1233.3	1252.5
45°	1060.8	1082.1	1135.3	1190.7	1212.0
47.5°	999.0	1024.6	1082.1	1148.1	1173.7
50°	933.0	964.9	1031.0	1103.4	1131.1
52.5°	866.9	903.2	977.7	1058.6	1088.5
55°	803.0	837.1	926.6	1013.9	1045.9
57.5°	732.7	775.3	873.3	967.1	999.0
60°	660.3	707.2	820.1	918.1	952.1
62.5°	587.9	641.2	769.0	866.9	903.2
65°	515.5	575.1	709.3	813.7	849.9
67.5°	445.2	511.2	653.9	758.3	794.5
70°	364.2	447.3	594.3	696.5	732.7
72.5°	289.7	385.5	536.8	632.6	664.6
75°	223.7	325.9	472.9	560.2	573.0
77.5°	164.0	266.3	406.8	436.7	438.8
80°	110.8	213.0	311.0	306.7	311.0
82.5°	72.4	159.8	196.0	219.4	221.5
85°	42.6	93.7	115.0	127.8	129.9
87.5°	21.3	32.0	40.5	42.6	46.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)