

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: P313395

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-HRP-CA125-W2A-U-3000K**

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: P313395
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-L83050-HRP-CA125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 3000K 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: 5041.0 lumens
Efficiency: N/A
Efficacy: 80.4 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

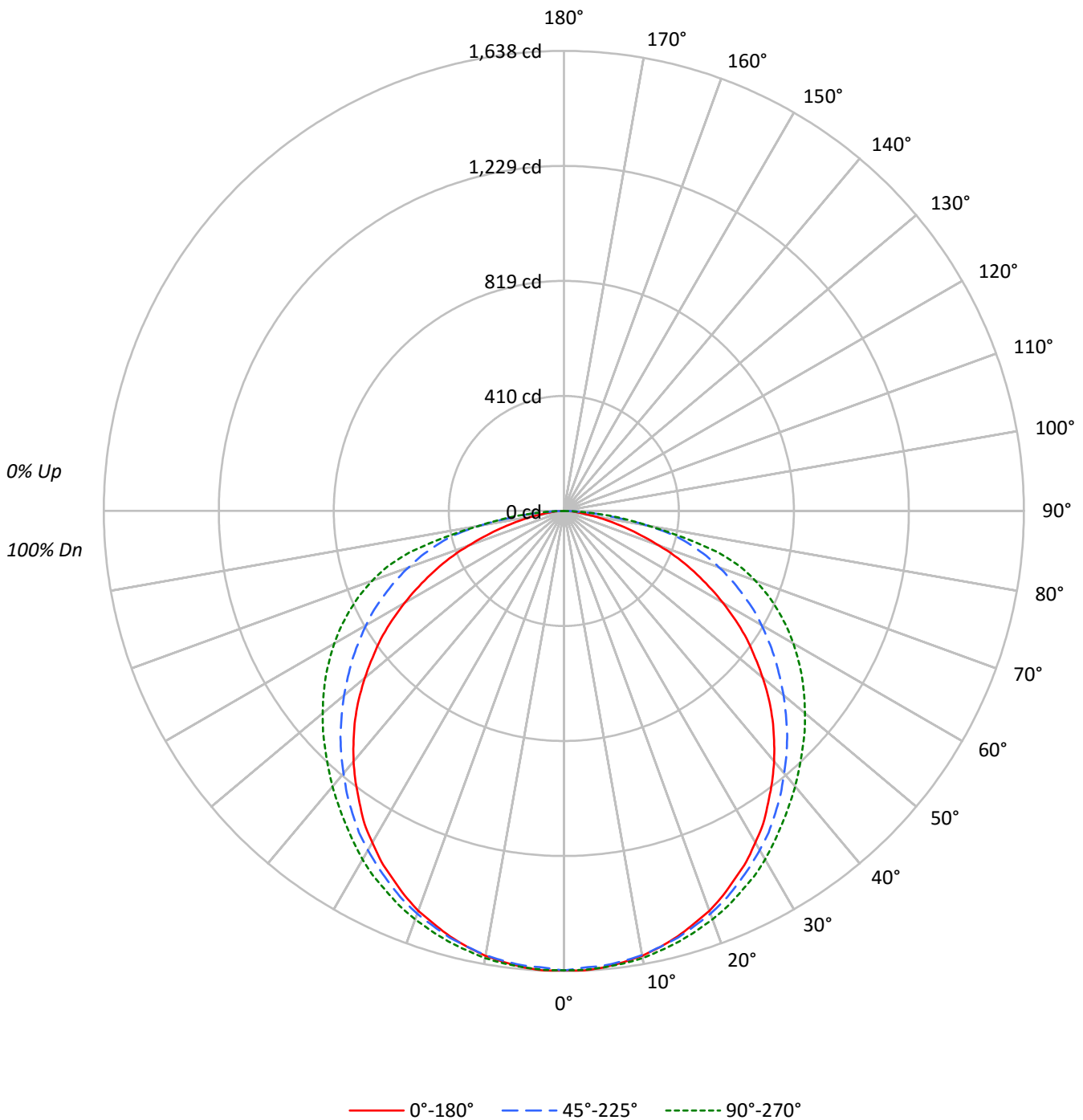
Input Watts (W): 62.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				10	0
RW	70	50	30	10	70	50	30	10	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	102	102	102	100
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2201	2201	2201
5°	2203	2195	2203
10°	2197	2194	2209
15°	2184	2190	2211
20°	2170	2185	2215
25°	2143	2174	2218
30°	2118	2167	2226
35°	2083	2156	2229
40°	2046	2142	2250
45°	2000	2140	2285
50°	1935	2138	2346
55°	1866	2153	2431
60°	1760	2186	2538
65°	1626	2238	2681
70°	1420	2316	2856
75°	1152	2436	2951
80°	850	2387	2387
85°	651	1760	1987



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.9	3.1
10°-20°	444.9	8.8
20°-30°	677.3	13.4
30°-40°	822.5	16.3
40°-50°	868.9	17.2
50°-60°	819.9	16.3
60°-70°	681.7	13.5
70°-80°	448.5	8.9
80°-90°	122.3	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°	1277.2	25.3
0°-40°	2099.7	41.7
0°-60°	3788.5	75.2
0°-90°	5041.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5041.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1636	1636	1636	1636	1636	
5°	1631	1631	1625	1631	1631	155
15°	1568	1570	1572	1587	1587	442
25°	1444	1452	1465	1490	1494	666
35°	1268	1283	1313	1346	1357	794
45°	1051	1072	1125	1180	1201	809
55°	796	829	918	1004	1036	709
65°	511	570	703	806	842	505
75°	222	323	468	555	568	239
85°	42	93	114	127	129	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1635.6	1635.6	1635.6	1635.6	1635.6
2.5°	1637.7	1635.6	1627.1	1635.6	1635.6
5°	1631.3	1631.3	1625.0	1631.3	1631.3
7.5°	1620.8	1620.8	1616.6	1625.0	1625.0
10°	1608.1	1608.1	1606.0	1616.6	1616.6
12.5°	1589.1	1591.2	1589.1	1601.8	1601.8
15°	1568.0	1570.1	1572.2	1587.0	1587.0
17.5°	1540.6	1544.8	1549.0	1565.9	1568.0
20°	1515.3	1517.4	1525.8	1544.8	1546.9
22.5°	1481.5	1487.8	1498.4	1517.4	1523.7
25°	1443.5	1452.0	1464.6	1489.9	1494.2
27.5°	1407.6	1414.0	1430.8	1458.3	1466.7
30°	1363.3	1373.9	1395.0	1422.4	1433.0
32.5°	1321.1	1331.7	1357.0	1386.5	1395.0
35°	1268.3	1283.1	1312.7	1346.4	1357.0
37.5°	1217.7	1232.5	1268.3	1306.3	1319.0
40°	1164.9	1181.8	1219.8	1264.1	1281.0
42.5°	1108.0	1131.2	1173.4	1221.9	1240.9
45°	1051.0	1072.1	1124.8	1179.7	1200.8
47.5°	989.8	1015.1	1072.1	1137.5	1162.8
50°	924.4	956.0	1021.4	1093.2	1120.6
52.5°	858.9	894.8	968.7	1048.9	1078.4
55°	795.6	829.4	918.0	1004.5	1036.2
57.5°	726.0	768.2	865.3	958.1	989.8
60°	654.2	700.7	812.5	909.6	943.3
62.5°	582.5	635.2	761.9	858.9	894.8
65°	510.7	569.8	702.8	806.2	842.0
67.5°	441.1	506.5	647.9	751.3	787.2
70°	360.9	443.2	588.8	690.1	726.0
72.5°	287.0	382.0	531.8	626.8	658.4
75°	221.6	322.9	468.5	555.0	567.7
77.5°	162.5	263.8	403.1	432.6	434.7
80°	109.7	211.0	308.1	303.9	308.1
82.5°	71.8	158.3	194.2	217.4	219.5
85°	42.2	92.9	114.0	126.6	128.7
87.5°	21.1	31.7	40.1	42.2	46.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)