

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: P309779

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-HRP-CA125-W2A-U-2700K**

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: P309779
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-2700K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 2700K 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: 4780.0 lumens
Efficiency: N/A
Efficacy: 76.1 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

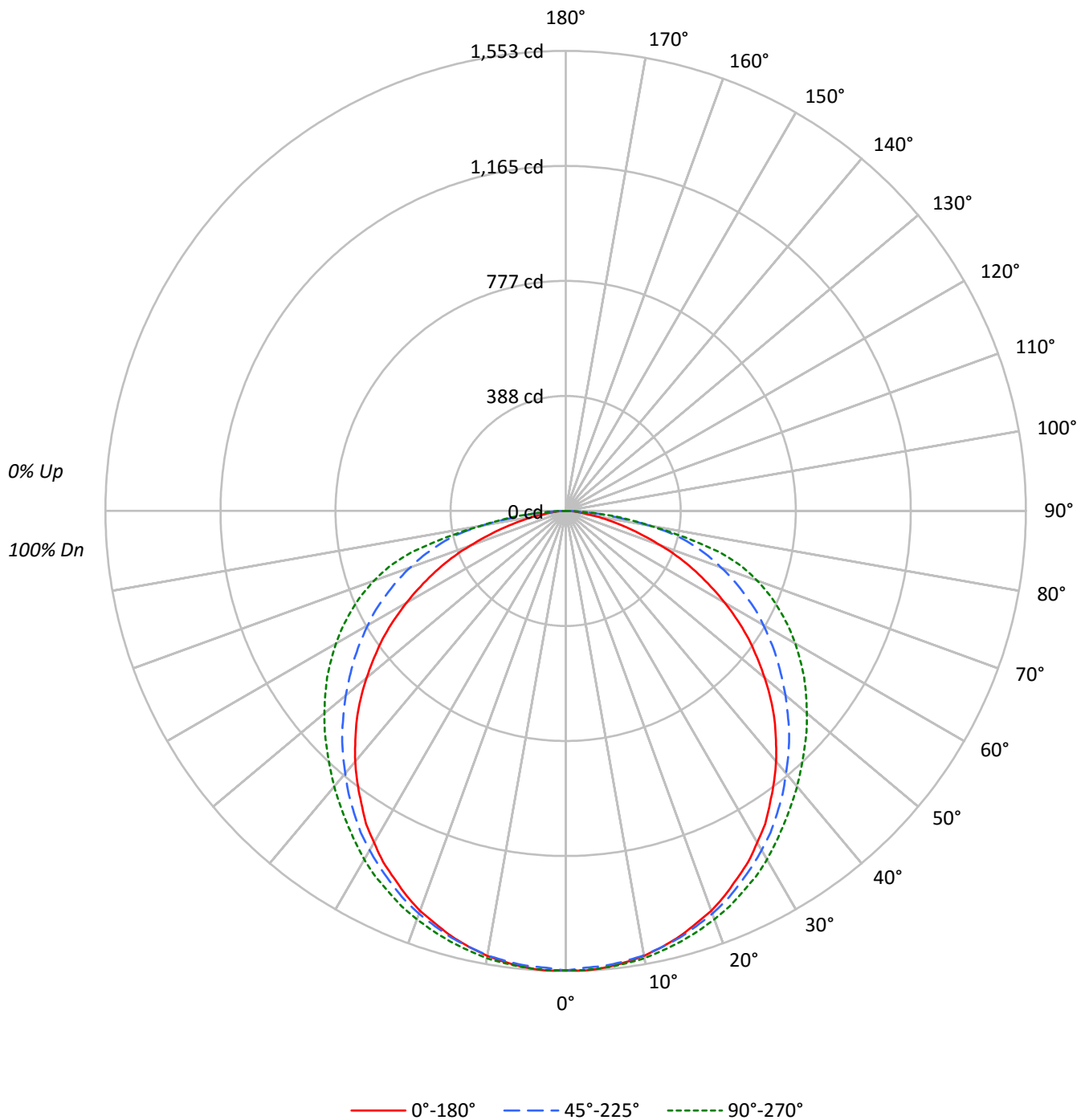
Input Watts (W): 62.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2087	2087	2087
5°	2089	2081	2089
10°	2083	2081	2094
15°	2071	2077	2096
20°	2057	2072	2100
25°	2032	2062	2103
30°	2008	2055	2111
35°	1975	2044	2113
40°	1940	2032	2134
45°	1896	2030	2167
50°	1835	2027	2224
55°	1770	2042	2305
60°	1669	2073	2407
65°	1542	2122	2542
70°	1346	2196	2708
75°	1092	2310	2798
80°	807	2264	2264
85°	618	1669	1885



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.9	3.1
10°-20°	421.9	8.8
20°-30°	642.3	13.4
30°-40°	779.9	16.3
40°-50°	823.9	17.2
50°-60°	777.5	16.3
60°-70°	646.4	13.5
70°-80°	425.3	8.9
80°-90°	115.9	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°	1211.1	25.3
0°-40°	1991.0	41.7
0°-60°	3592.3	75.2
0°-90°	4780.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4780.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1551	1551	1551	1551	1551	
5°	1547	1547	1541	1547	1547	147
15°	1487	1489	1491	1505	1505	419
25°	1369	1377	1389	1413	1417	631
35°	1203	1217	1245	1277	1287	753
45°	997	1017	1067	1119	1139	767
55°	754	786	870	952	983	672
65°	484	540	666	764	798	479
75°	210	306	444	526	538	226
85°	40	88	108	120	122	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1550.9	1550.9	1550.9	1550.9	1550.9
2.5°	1552.9	1550.9	1542.9	1550.9	1550.9
5°	1546.9	1546.9	1540.9	1546.9	1546.9
7.5°	1536.9	1536.9	1532.9	1540.9	1540.9
10°	1524.9	1524.9	1522.9	1532.9	1532.9
12.5°	1506.8	1508.9	1506.8	1518.9	1518.9
15°	1486.8	1488.8	1490.8	1504.8	1504.8
17.5°	1460.8	1464.8	1468.8	1484.8	1486.8
20°	1436.8	1438.8	1446.8	1464.8	1466.8
22.5°	1404.8	1410.8	1420.8	1438.8	1444.8
25°	1368.8	1376.8	1388.8	1412.8	1416.8
27.5°	1334.8	1340.8	1356.8	1382.8	1390.8
30°	1292.7	1302.7	1322.7	1348.8	1358.8
32.5°	1252.7	1262.7	1286.7	1314.7	1322.7
35°	1202.7	1216.7	1244.7	1276.7	1286.7
37.5°	1154.7	1168.7	1202.7	1238.7	1250.7
40°	1104.6	1120.6	1156.7	1198.7	1214.7
42.5°	1050.6	1072.6	1112.6	1158.7	1176.7
45°	996.6	1016.6	1066.6	1118.6	1138.6
47.5°	938.5	962.5	1016.6	1078.6	1102.6
50°	876.5	906.5	968.5	1036.6	1062.6
52.5°	814.5	848.5	918.5	994.6	1022.6
55°	754.4	786.4	870.5	952.5	982.6
57.5°	688.4	728.4	820.5	908.5	938.5
60°	620.3	664.4	770.4	862.5	894.5
62.5°	552.3	602.3	722.4	814.5	848.5
65°	484.3	540.3	666.4	764.4	798.5
67.5°	418.2	480.3	614.3	712.4	746.4
70°	342.2	420.2	558.3	654.4	688.4
72.5°	272.2	362.2	504.3	594.3	624.4
75°	210.1	306.2	444.3	526.3	538.3
77.5°	154.1	250.1	382.2	410.2	412.2
80°	104.1	200.1	292.2	288.2	292.2
82.5°	68.0	150.1	184.1	206.1	208.1
85°	40.0	88.0	108.1	120.1	122.1
87.5°	20.0	30.0	38.0	40.0	44.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)