

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: P309780

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-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: P309780
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-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: 4918.0 lumens
Efficiency: N/A
Efficacy: 78.8 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

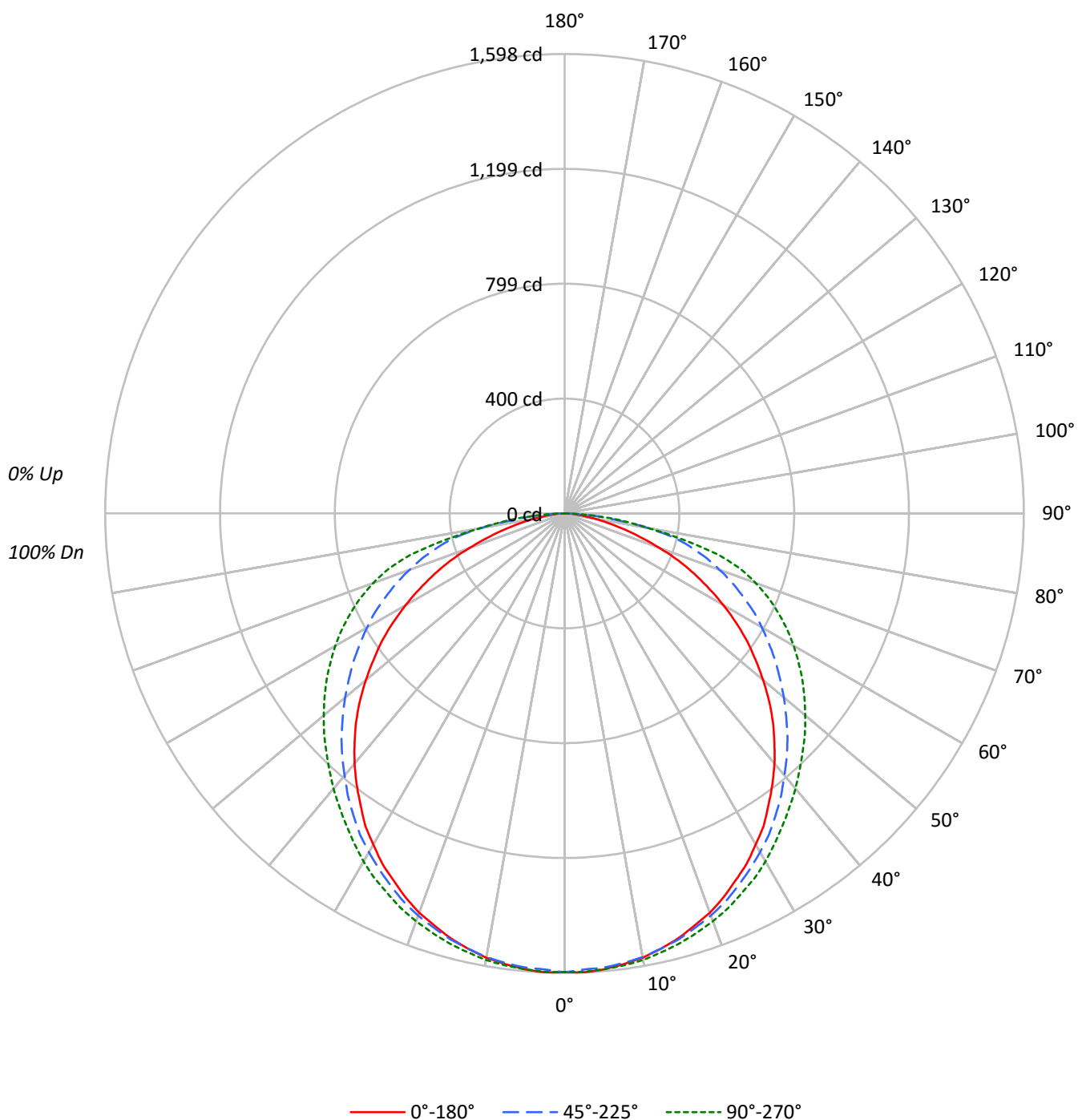
Input Watts (W): 62.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2147	2147	2147
5°	2150	2141	2150
10°	2144	2141	2155
15°	2131	2137	2157
20°	2117	2131	2161
25°	2091	2121	2164
30°	2066	2114	2172
35°	2032	2103	2175
40°	1996	2090	2195
45°	1951	2088	2229
50°	1888	2086	2289
55°	1821	2101	2371
60°	1718	2133	2477
65°	1586	2183	2615
70°	1385	2260	2786
75°	1124	2376	2879
80°	830	2329	2329
85°	636	1717	1939



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.2	3.1
10°-20°	434.1	8.8
20°-30°	660.8	13.4
30°-40°	802.4	16.3
40°-50°	847.7	17.2
50°-60°	799.9	16.3
60°-70°	665.1	13.5
70°-80°	437.6	8.9
80°-90°	119.3	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°	1246.0	25.3
0°-40°	2048.4	41.7
0°-60°	3696.0	75.2
0°-90°	4918.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4918.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1596	1596	1596	1596	1596	
5°	1592	1592	1585	1592	1592	151
15°	1530	1532	1534	1548	1548	431
25°	1408	1416	1429	1454	1458	650
35°	1237	1252	1281	1314	1324	775
45°	1025	1046	1097	1151	1172	790
55°	776	809	896	980	1011	691
65°	498	556	686	786	822	493
75°	216	315	457	542	554	233
85°	41	91	111	124	126	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1595.6	1595.6	1595.6	1595.6	1595.6
2.5°	1597.7	1595.6	1587.4	1595.6	1595.6
5°	1591.5	1591.5	1585.4	1591.5	1591.5
7.5°	1581.2	1581.2	1577.1	1585.4	1585.4
10°	1568.9	1568.9	1566.8	1577.1	1577.1
12.5°	1550.4	1552.4	1550.4	1562.7	1562.7
15°	1529.8	1531.8	1533.9	1548.3	1548.3
17.5°	1503.0	1507.1	1511.2	1527.7	1529.8
20°	1478.3	1480.4	1488.6	1507.1	1509.2
22.5°	1445.3	1451.5	1461.8	1480.4	1486.5
25°	1408.3	1416.5	1428.9	1453.6	1457.7
27.5°	1373.3	1379.5	1395.9	1422.7	1430.9
30°	1330.1	1340.3	1360.9	1387.7	1398.0
32.5°	1288.9	1299.2	1323.9	1352.7	1360.9
35°	1237.4	1251.8	1280.6	1313.6	1323.9
37.5°	1188.0	1202.4	1237.4	1274.5	1286.8
40°	1136.5	1153.0	1190.0	1233.3	1249.8
42.5°	1080.9	1103.6	1144.7	1192.1	1210.6
45°	1025.3	1045.9	1097.4	1150.9	1171.5
47.5°	965.6	990.3	1045.9	1109.7	1134.5
50°	901.8	932.7	996.5	1066.5	1093.3
52.5°	838.0	873.0	945.0	1023.3	1052.1
55°	776.2	809.1	895.6	980.0	1010.9
57.5°	708.3	749.4	844.1	934.7	965.6
60°	638.3	683.6	792.7	887.4	920.3
62.5°	568.3	619.7	743.3	838.0	873.0
65°	498.3	555.9	685.6	786.5	821.5
67.5°	430.3	494.1	632.1	733.0	768.0
70°	352.1	432.4	574.4	673.3	708.3
72.5°	280.0	372.7	518.8	611.5	642.4
75°	216.2	315.0	457.1	541.5	553.8
77.5°	158.5	257.4	393.3	422.1	424.1
80°	107.1	205.9	300.6	296.5	300.6
82.5°	70.0	154.4	189.4	212.1	214.1
85°	41.2	90.6	111.2	123.5	125.6
87.5°	20.6	30.9	39.1	41.2	45.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)