

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: P309796

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-HRP-CP125-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: P309796
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-CP125-W2A-U-6500K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125"
POLYCARB 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: 5339.0 lumens
Efficiency: N/A
Efficacy: 81.4 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

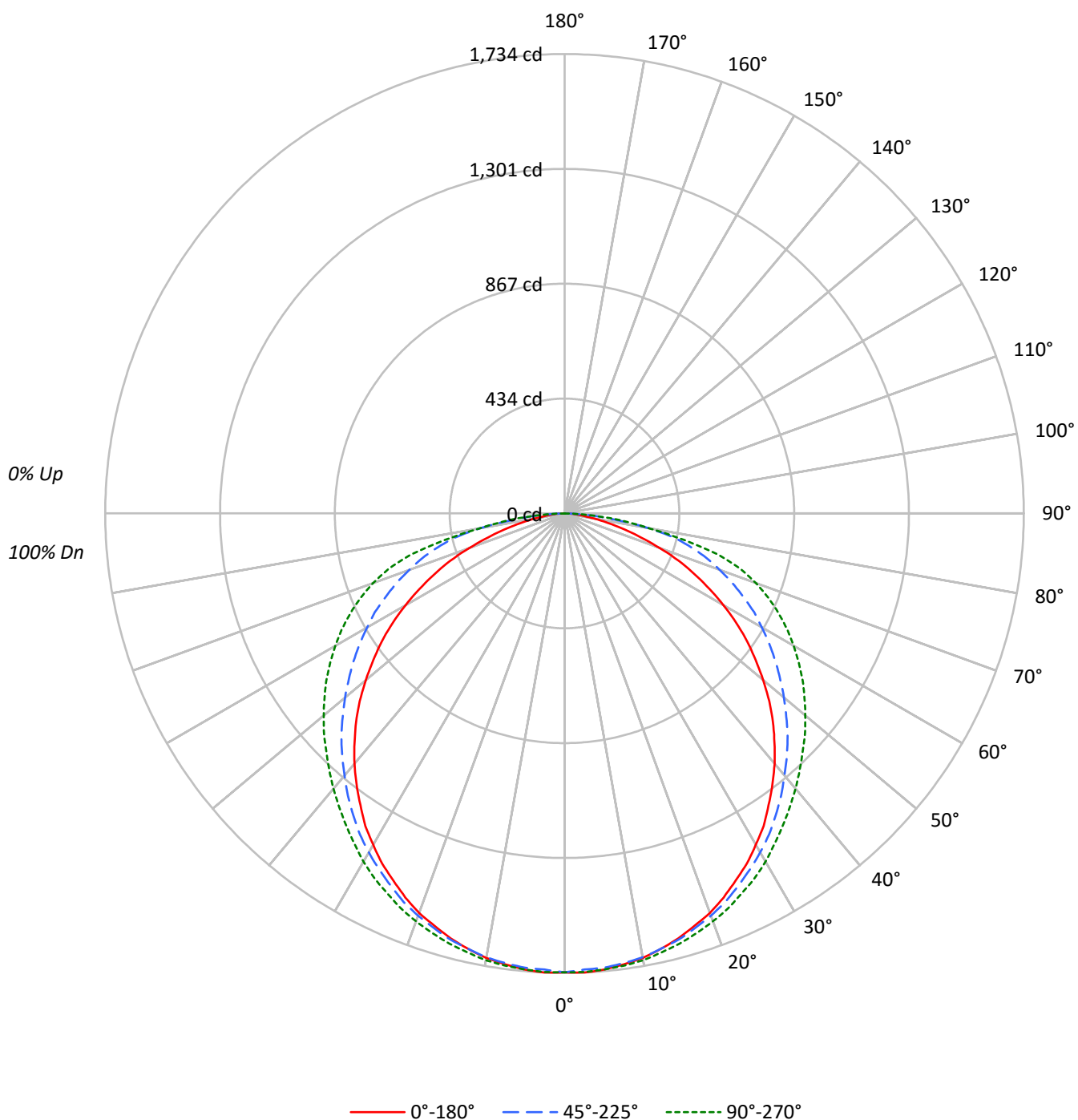
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2331	2331	2331
5°	2334	2325	2334
10°	2327	2324	2339
15°	2313	2320	2341
20°	2298	2314	2346
25°	2270	2303	2349
30°	2243	2295	2358
35°	2206	2284	2361
40°	2167	2269	2383
45°	2118	2267	2420
50°	2049	2264	2484
55°	1977	2281	2575
60°	1865	2316	2689
65°	1722	2370	2839
70°	1504	2453	3025
75°	1220	2580	3126
80°	900	2528	2528
85°	690	1863	2104



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.1	3.1
10°-20°	471.2	8.8
20°-30°	717.4	13.4
30°-40°	871.1	16.3
40°-50°	920.3	17.2
50°-60°	868.4	16.3
60°-70°	722.0	13.5
70°-80°	475.0	8.9
80°-90°	129.5	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°	1352.7	25.3
0°-40°	2223.8	41.7
0°-60°	4012.5	75.2
0°-90°	5339.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5339.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1732	1732	1732	1732	1732	
5°	1728	1728	1721	1728	1728	164
15°	1661	1663	1665	1681	1681	468
25°	1529	1538	1551	1578	1582	705
35°	1343	1359	1390	1426	1437	841
45°	1113	1136	1191	1249	1272	857
55°	843	878	972	1064	1098	751
65°	541	604	744	854	892	535
75°	235	342	496	588	601	253
85°	45	98	121	134	136	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1732.2	1732.2	1732.2	1732.2	1732.2
2.5°	1734.5	1732.2	1723.3	1732.2	1732.2
5°	1727.8	1727.8	1721.1	1727.8	1727.8
7.5°	1716.6	1716.6	1712.1	1721.1	1721.1
10°	1703.2	1703.2	1701.0	1712.1	1712.1
12.5°	1683.1	1685.3	1683.1	1696.5	1696.5
15°	1660.7	1663.0	1665.2	1680.8	1680.8
17.5°	1631.7	1636.1	1640.6	1658.5	1660.7
20°	1604.8	1607.1	1616.0	1636.1	1638.4
22.5°	1569.1	1575.8	1587.0	1607.1	1613.8
25°	1528.8	1537.8	1551.2	1578.0	1582.5
27.5°	1490.8	1497.6	1515.4	1544.5	1553.4
30°	1443.9	1455.1	1477.4	1506.5	1517.7
32.5°	1399.2	1410.4	1437.2	1468.5	1477.4
35°	1343.3	1359.0	1390.3	1426.0	1437.2
37.5°	1289.7	1305.3	1343.3	1383.6	1397.0
40°	1233.8	1251.7	1291.9	1338.9	1356.7
42.5°	1173.5	1198.0	1242.7	1294.2	1314.3
45°	1113.1	1135.5	1191.3	1249.4	1271.8
47.5°	1048.3	1075.1	1135.5	1204.7	1231.6
50°	979.0	1012.5	1081.8	1157.8	1186.9
52.5°	909.7	947.7	1025.9	1110.9	1142.2
55°	842.7	878.4	972.3	1063.9	1097.5
57.5°	768.9	813.6	916.4	1014.8	1048.3
60°	692.9	742.1	860.5	963.4	999.1
62.5°	616.9	672.8	806.9	909.7	947.7
65°	540.9	603.5	744.3	853.8	891.8
67.5°	467.1	536.4	686.2	795.7	833.7
70°	382.2	469.4	623.6	730.9	768.9
72.5°	304.0	404.6	563.3	663.8	697.4
75°	234.7	342.0	496.2	587.8	601.3
77.5°	172.1	279.4	426.9	458.2	460.4
80°	116.2	223.5	326.3	321.9	326.3
82.5°	76.0	167.6	205.6	230.2	232.5
85°	44.7	98.3	120.7	134.1	136.3
87.5°	22.4	33.5	42.5	44.7	49.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)