

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: METALUX

Report Number: P474426

Luminaire Tested: **24CZ2-65HE-HRP-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474426
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-65HE-HRP-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ HRP INSERT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5490.1 lumens
Efficiency: N/A
Efficacy: 112.3 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

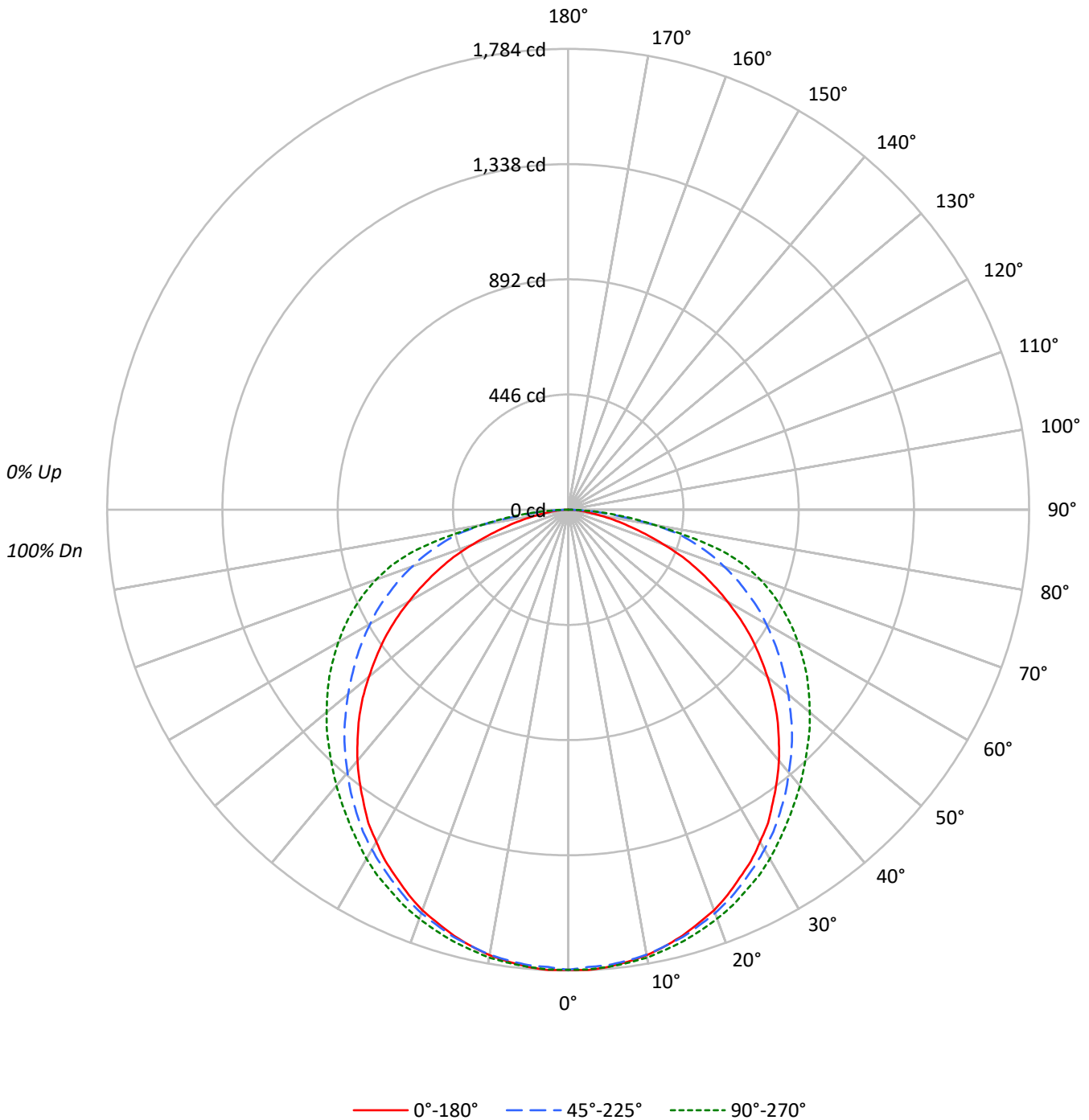
Input Watts (W): 48.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2397	2397	2397
5°	2400	2390	2400
10°	2393	2390	2405
15°	2379	2385	2408
20°	2363	2379	2412
25°	2334	2368	2416
30°	2307	2360	2425
35°	2269	2348	2428
40°	2228	2334	2450
45°	2178	2331	2488
50°	2107	2329	2555
55°	2033	2345	2647
60°	1917	2381	2764
65°	1771	2437	2920
70°	1546	2522	3111
75°	1254	2652	3214
80°	927	2601	2601
85°	710	1916	2163



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.7	3.1
10°-20°	484.6	8.8
20°-30°	737.7	13.4
30°-40°	895.7	16.3
40°-50°	946.4	17.2
50°-60°	893.0	16.3
60°-70°	742.5	13.5
70°-80°	488.5	8.9
80°-90°	133.2	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°	1391.0	25.3
0°-40°	2286.7	41.7
0°-60°	4126.0	75.2
0°-90°	5490.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5490.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1781	1781	1781	1781	1781	
5°	1777	1777	1770	1777	1777	169
15°	1708	1710	1712	1728	1728	482
25°	1572	1581	1595	1623	1627	725
35°	1381	1398	1430	1466	1478	865
45°	1145	1168	1225	1285	1308	881
55°	866	903	1000	1094	1128	772
65°	556	621	766	878	917	550
75°	241	352	510	604	618	260
85°	46	101	124	138	140	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1781.3	1781.3	1781.3	1781.3	1781.3
2.5°	1783.6	1781.3	1772.1	1781.3	1781.3
5°	1776.8	1776.8	1769.7	1776.8	1776.8
7.5°	1765.2	1765.2	1760.5	1769.7	1769.7
10°	1751.3	1751.3	1749.2	1760.5	1760.5
12.5°	1730.8	1732.9	1730.8	1744.5	1744.5
15°	1707.7	1710.0	1712.4	1728.4	1728.4
17.5°	1677.9	1682.4	1687.1	1705.3	1707.7
20°	1650.3	1652.5	1661.7	1682.4	1684.8
22.5°	1613.5	1620.4	1631.9	1652.5	1659.5
25°	1572.0	1581.2	1595.1	1622.7	1627.2
27.5°	1533.1	1539.9	1558.3	1588.3	1597.5
30°	1484.7	1496.3	1519.2	1549.1	1560.7
32.5°	1438.7	1450.3	1477.9	1510.0	1519.2
35°	1381.4	1397.5	1429.5	1466.3	1477.9
37.5°	1326.2	1342.3	1381.4	1422.7	1436.6
40°	1268.7	1287.1	1328.6	1376.7	1395.1
42.5°	1206.6	1231.9	1277.9	1330.7	1351.5
45°	1144.6	1167.7	1225.0	1284.7	1307.8
47.5°	1078.1	1105.7	1167.7	1238.9	1266.5
50°	1006.8	1041.3	1112.5	1190.6	1220.5
52.5°	935.6	974.5	1054.9	1142.2	1174.5
55°	866.5	903.3	999.7	1094.1	1128.5
57.5°	790.7	836.7	942.4	1043.4	1078.1
60°	712.4	763.1	884.9	990.5	1027.3
62.5°	634.3	691.9	829.7	935.6	974.5
65°	556.2	620.7	765.5	878.0	917.2
67.5°	480.3	551.5	705.6	818.3	857.3
70°	393.0	482.6	641.2	751.6	790.7
72.5°	312.6	416.1	579.1	682.7	717.1
75°	241.3	351.7	510.2	604.4	618.3
77.5°	176.9	287.3	439.0	471.1	473.4
80°	119.6	229.8	335.7	331.0	335.7
82.5°	78.1	172.4	211.4	236.8	239.0
85°	46.0	101.2	124.1	138.0	140.1
87.5°	22.9	34.4	43.6	46.0	50.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)