

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: P474393

Luminaire Tested: **24CZ2-95VHE-HRP-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474393
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-95VHE-HRP-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ HRP
INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7460.4 lumens
Efficiency: N/A
Efficacy: 110.4 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

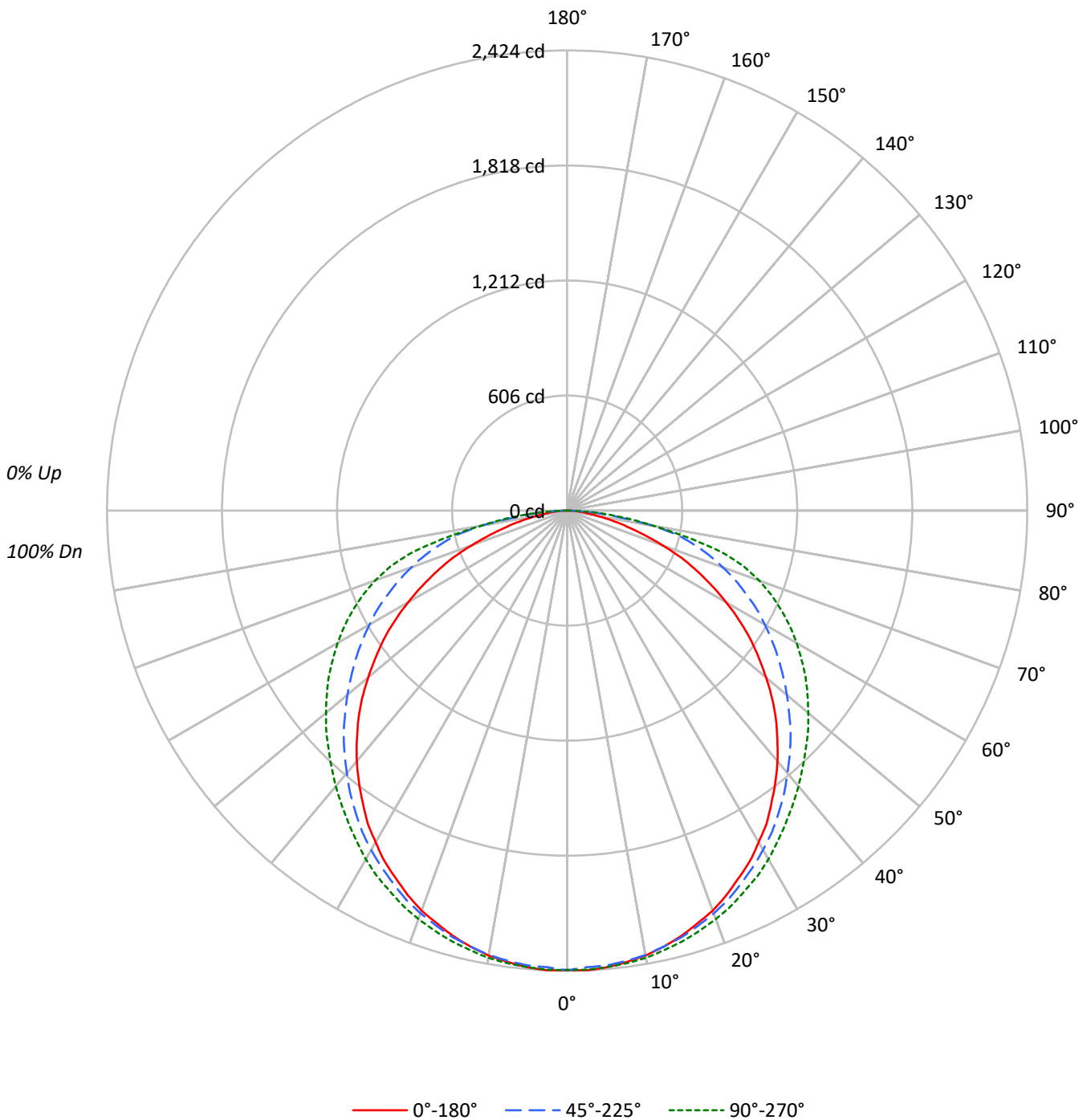
Input Watts (W): 67.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3257	3257	3257
5°	3261	3248	3261
10°	3251	3247	3268
15°	3232	3241	3272
20°	3211	3233	3278
25°	3171	3218	3283
30°	3135	3207	3295
35°	3083	3191	3299
40°	3028	3171	3330
45°	2959	3167	3382
50°	2864	3164	3472
55°	2762	3187	3597
60°	2605	3236	3757
65°	2407	3312	3968
70°	2101	3428	4227
75°	1705	3605	4368
80°	1259	3534	3534
85°	965	2603	2939



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	229.3	3.1
10°-20°	658.5	8.8
20°-30°	1002.4	13.4
30°-40°	1217.2	16.3
40°-50°	1285.9	17.2
50°-60°	1213.4	16.3
60°-70°	1008.9	13.5
70°-80°	663.8	8.9
80°-90°	180.9	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°	1890.2	25.3
0°-40°	3107.4	41.7
0°-60°	5606.7	75.2
0°-90°	7460.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7460.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2420	2420	2420	2420	2420	
5°	2414	2414	2405	2414	2414	229
15°	2320	2324	2327	2349	2349	654
25°	2136	2149	2168	2205	2211	985
35°	1877	1899	1943	1993	2008	1175
45°	1555	1587	1665	1746	1777	1198
55°	1177	1227	1358	1487	1534	1049
65°	756	843	1040	1193	1246	747
75°	328	478	693	821	840	353
85°	62	138	169	188	190	76
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2420.5	2420.5	2420.5	2420.5	2420.5
2.5°	2423.7	2420.5	2408.0	2420.5	2420.5
5°	2414.4	2414.4	2404.8	2414.4	2414.4
7.5°	2398.7	2398.7	2392.3	2404.8	2404.8
10°	2379.8	2379.8	2376.9	2392.3	2392.3
12.5°	2351.9	2354.8	2351.9	2370.5	2370.5
15°	2320.5	2323.7	2326.9	2348.7	2348.7
17.5°	2280.1	2286.2	2292.6	2317.3	2320.5
20°	2242.6	2245.5	2258.0	2286.2	2289.4
22.5°	2192.6	2201.9	2217.6	2245.5	2255.1
25°	2136.2	2148.7	2167.6	2205.1	2211.2
27.5°	2083.3	2092.6	2117.6	2158.3	2170.8
30°	2017.6	2033.3	2064.4	2105.1	2120.8
32.5°	1955.1	1970.8	2008.3	2051.9	2064.4
35°	1877.2	1899.0	1942.6	1992.6	2008.3
37.5°	1802.2	1824.0	1877.2	1933.3	1952.2
40°	1723.9	1748.9	1805.4	1870.8	1895.8
42.5°	1639.6	1673.9	1736.4	1808.2	1836.5
45°	1555.3	1586.7	1664.6	1745.7	1777.2
47.5°	1464.9	1502.4	1586.7	1683.5	1721.1
50°	1368.1	1414.9	1511.7	1617.8	1658.5
52.5°	1271.3	1324.2	1433.5	1552.1	1596.0
55°	1177.4	1227.4	1358.5	1486.7	1533.5
57.5°	1074.5	1137.0	1280.6	1417.8	1464.9
60°	968.1	1037.0	1202.4	1346.0	1396.0
62.5°	862.0	940.2	1127.4	1271.3	1324.2
65°	755.9	843.4	1040.2	1193.1	1246.3
67.5°	652.6	749.5	958.8	1112.0	1164.9
70°	534.0	655.9	871.3	1021.3	1074.5
72.5°	424.7	565.5	787.0	927.7	974.5
75°	327.9	477.9	693.4	821.3	840.2
77.5°	240.4	390.4	596.6	640.1	643.4
80°	162.5	312.2	456.1	449.7	456.1
82.5°	106.1	234.3	287.2	321.8	324.7
85°	62.5	137.5	168.6	187.5	190.4
87.5°	31.1	46.8	59.3	62.5	68.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)