

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: P474386

Luminaire Tested: **24CZ2-55VHE-HRP-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474386
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-55VHE-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: 4302.8 lumens
Efficiency: N/A
Efficacy: 116.0 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

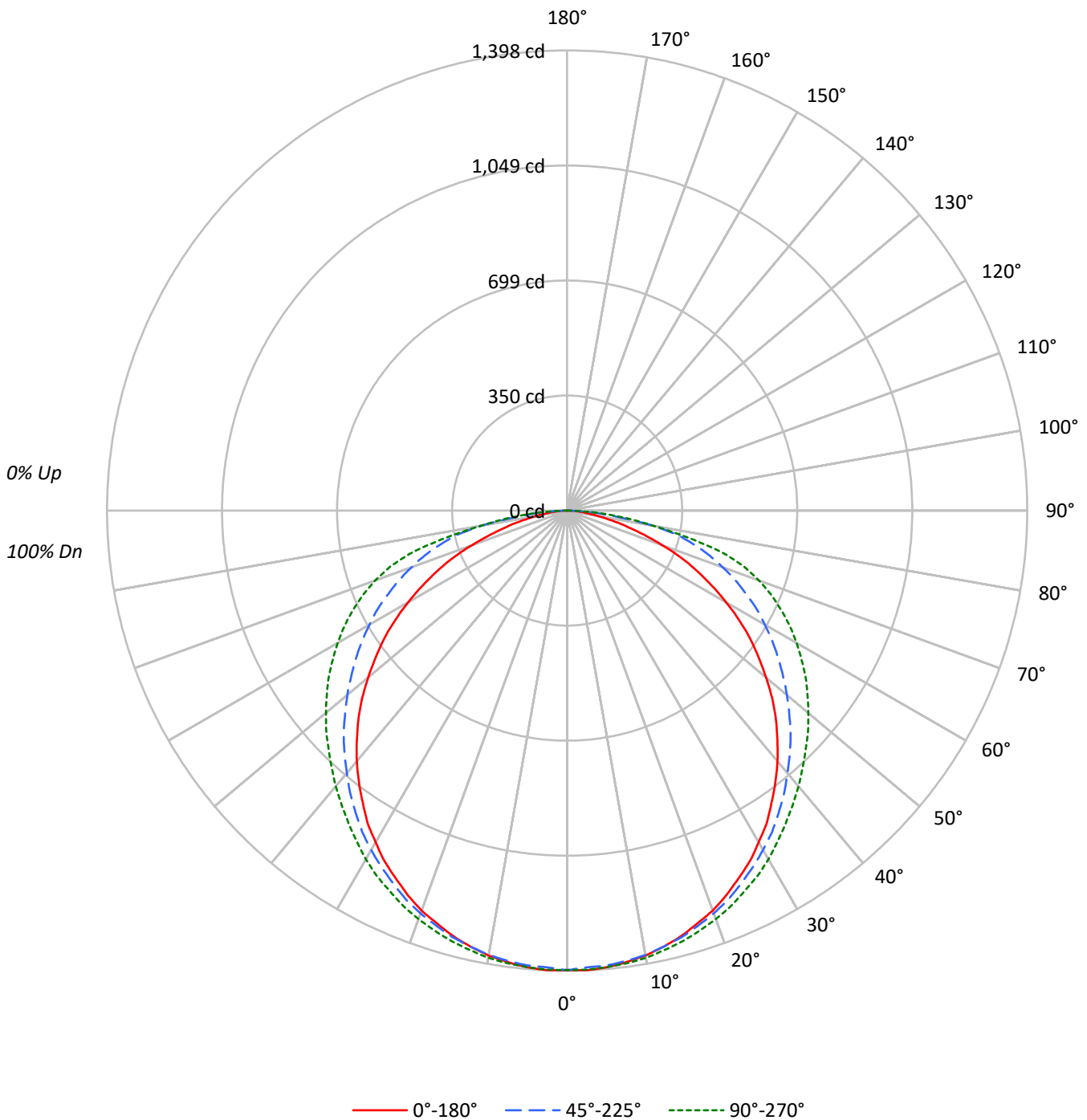
Input Watts (W): 37.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1878	1878	1878
5°	1881	1873	1881
10°	1875	1873	1885
15°	1864	1869	1887
20°	1852	1865	1891
25°	1829	1856	1893
30°	1808	1850	1900
35°	1778	1840	1903
40°	1746	1829	1920
45°	1707	1827	1950
50°	1652	1825	2002
55°	1593	1838	2075
60°	1502	1866	2167
65°	1388	1910	2288
70°	1212	1977	2438
75°	983	2079	2519
80°	726	2039	2039
85°	557	1501	1695



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.2	3.1
10°-20°	379.8	8.8
20°-30°	578.2	13.4
30°-40°	702.0	16.3
40°-50°	741.7	17.2
50°-60°	699.8	16.3
60°-70°	581.9	13.5
70°-80°	382.8	8.9
80°-90°	104.4	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°	1090.2	25.3
0°-40°	1792.2	41.7
0°-60°	3233.7	75.2
0°-90°	4302.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4302.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1396	1396	1396	1396	1396	
5°	1392	1392	1387	1392	1392	132
15°	1338	1340	1342	1355	1355	377
25°	1232	1239	1250	1272	1275	568
35°	1083	1095	1120	1149	1158	678
45°	897	915	960	1007	1025	691
55°	679	708	784	858	884	605
65°	436	486	600	688	719	431
75°	189	276	400	474	485	204
85°	36	79	97	108	110	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1396.0	1396.0	1396.0	1396.0	1396.0
2.5°	1397.9	1396.0	1388.8	1396.0	1396.0
5°	1392.5	1392.5	1387.0	1392.5	1392.5
7.5°	1383.5	1383.5	1379.8	1387.0	1387.0
10°	1372.6	1372.6	1370.9	1379.8	1379.8
12.5°	1356.5	1358.1	1356.5	1367.2	1367.2
15°	1338.4	1340.2	1342.1	1354.6	1354.6
17.5°	1315.1	1318.6	1322.3	1336.5	1338.4
20°	1293.4	1295.1	1302.3	1318.6	1320.4
22.5°	1264.6	1270.0	1279.0	1295.1	1300.6
25°	1232.1	1239.3	1250.2	1271.8	1275.3
27.5°	1201.5	1206.9	1221.3	1244.8	1252.0
30°	1163.6	1172.7	1190.6	1214.1	1223.2
32.5°	1127.6	1136.7	1158.3	1183.4	1190.6
35°	1082.7	1095.2	1120.4	1149.2	1158.3
37.5°	1039.4	1052.0	1082.7	1115.0	1125.9
40°	994.3	1008.7	1041.3	1079.0	1093.4
42.5°	945.7	965.5	1001.5	1042.9	1059.2
45°	897.0	915.2	960.1	1006.9	1025.0
47.5°	844.9	866.5	915.2	971.0	992.6
50°	789.1	816.1	871.9	933.1	956.6
52.5°	733.2	763.7	826.8	895.2	920.5
55°	679.1	707.9	783.5	857.5	884.5
57.5°	619.7	655.8	738.6	817.7	844.9
60°	558.3	598.1	693.5	776.3	805.2
62.5°	497.1	542.3	650.2	733.2	763.7
65°	436.0	486.4	599.9	688.1	718.8
67.5°	376.4	432.3	553.0	641.4	671.9
70°	308.0	378.3	502.5	589.0	619.7
72.5°	245.0	326.1	453.9	535.0	562.0
75°	189.1	275.7	399.9	473.7	484.6
77.5°	138.7	225.2	344.1	369.2	371.1
80°	93.7	180.1	263.1	259.4	263.1
82.5°	61.2	135.1	165.7	185.6	187.3
85°	36.1	79.3	97.2	108.2	109.8
87.5°	17.9	27.0	34.2	36.1	39.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)