

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: P474187

Luminaire Tested: **24CZ2-60VHE-RDP-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474187
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-60VHE-RDP-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP
INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3883.8 lumens
Efficiency: N/A
Efficacy: 95.4 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

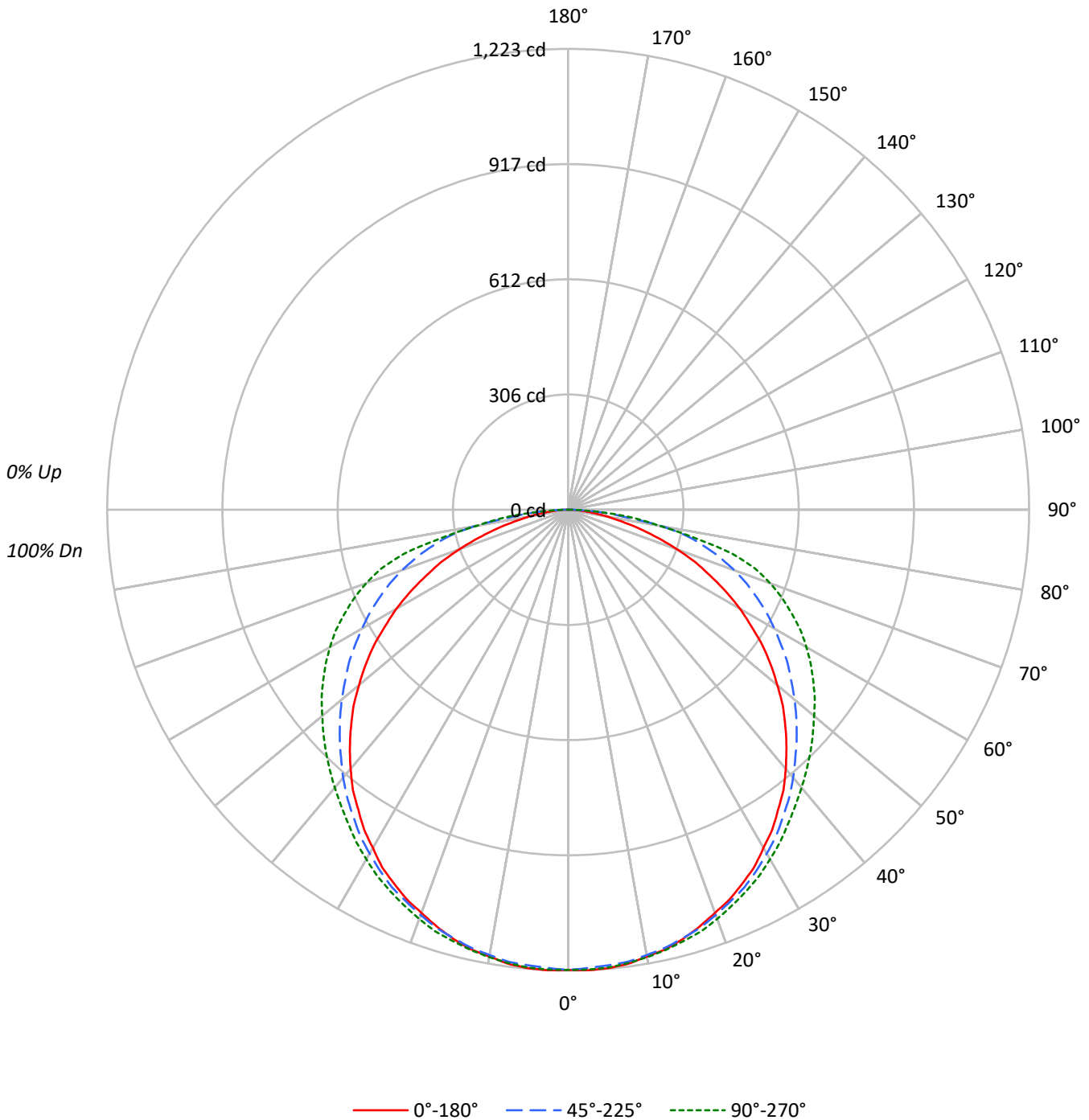
Input Watts (W): 40.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	68	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1643	1643	1643
5°	1650	1639	1647
10°	1645	1640	1648
15°	1642	1640	1650
20°	1630	1638	1655
25°	1624	1642	1659
30°	1610	1637	1664
35°	1595	1633	1671
40°	1577	1631	1692
45°	1551	1631	1730
50°	1516	1641	1783
55°	1478	1667	1862
60°	1415	1700	1965
65°	1325	1760	2085
70°	1205	1842	2243
75°	1021	1943	2344
80°	807	1955	1895
85°	594	1488	1666



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.9	3.0
10°-20°	333.4	8.6
20°-30°	509.9	13.1
30°-40°	623.3	16.0
40°-50°	664.4	17.1
50°-60°	635.2	16.4
60°-70°	538.1	13.9
70°-80°	361.6	9.3
80°-90°	102.0	2.6
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°	959.2	24.7
0°-40°	1582.5	40.7
0°-60°	2882.1	74.2
0°-90°	3883.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3883.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1221	1221	1221	1221	1221	
5°	1221	1220	1214	1220	1220	116
15°	1179	1179	1177	1187	1185	332
25°	1094	1098	1106	1115	1117	504
35°	971	979	994	1013	1017	608
45°	815	828	857	894	909	629
55°	630	653	711	767	794	561
65°	416	458	553	626	655	413
75°	196	268	374	437	451	210
85°	38	79	96	104	108	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1221.4	1221.4	1221.4	1221.4	1221.4
2.5°	1223.4	1223.4	1217.6	1221.4	1221.4
5°	1221.4	1219.5	1213.7	1219.5	1219.5
7.5°	1215.6	1213.7	1209.9	1215.6	1213.7
10°	1204.1	1204.1	1200.2	1206.0	1206.0
12.5°	1194.4	1192.5	1190.6	1198.3	1196.4
15°	1179.0	1179.0	1177.1	1186.7	1184.8
17.5°	1159.8	1161.7	1163.6	1171.3	1173.2
20°	1138.5	1142.4	1144.3	1155.9	1155.9
22.5°	1119.3	1121.2	1125.1	1136.6	1136.6
25°	1094.2	1098.1	1105.8	1115.4	1117.3
27.5°	1069.2	1071.1	1080.7	1094.2	1096.1
30°	1036.4	1042.2	1053.7	1069.2	1071.1
32.5°	1007.5	1013.3	1026.8	1042.2	1046.0
35°	970.9	978.6	994.0	1013.3	1017.1
37.5°	938.1	943.9	963.2	984.4	990.1
40°	897.8	909.2	928.5	953.5	963.2
42.5°	857.3	868.9	892.0	924.6	936.2
45°	814.9	828.4	857.3	894.0	909.2
47.5°	772.5	787.9	820.7	863.1	880.5
50°	724.3	743.6	784.1	832.3	851.6
52.5°	678.1	701.2	745.5	799.5	824.6
55°	629.9	653.0	710.8	766.7	793.7
57.5°	575.9	606.8	670.4	734.0	762.9
60°	526.0	554.7	631.8	701.2	730.1
62.5°	472.0	510.6	593.3	666.5	695.4
65°	416.1	458.5	552.8	626.0	654.9
67.5°	366.0	412.3	512.5	585.6	614.5
70°	306.3	364.1	468.2	541.2	570.1
72.5°	250.4	314.0	421.9	493.2	520.2
75°	196.4	267.7	373.7	437.3	450.8
77.5°	146.5	221.5	323.6	350.6	341.0
80°	104.1	177.3	252.3	238.8	244.6
82.5°	67.5	134.9	156.1	177.3	182.9
85°	38.5	79.0	96.4	104.1	107.9
87.5°	17.3	28.9	38.5	38.5	36.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)