

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: P474175

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474175
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-60HE-RDP-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, 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: 3997.0 lumens
Efficiency: N/A
Efficacy: 90.6 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

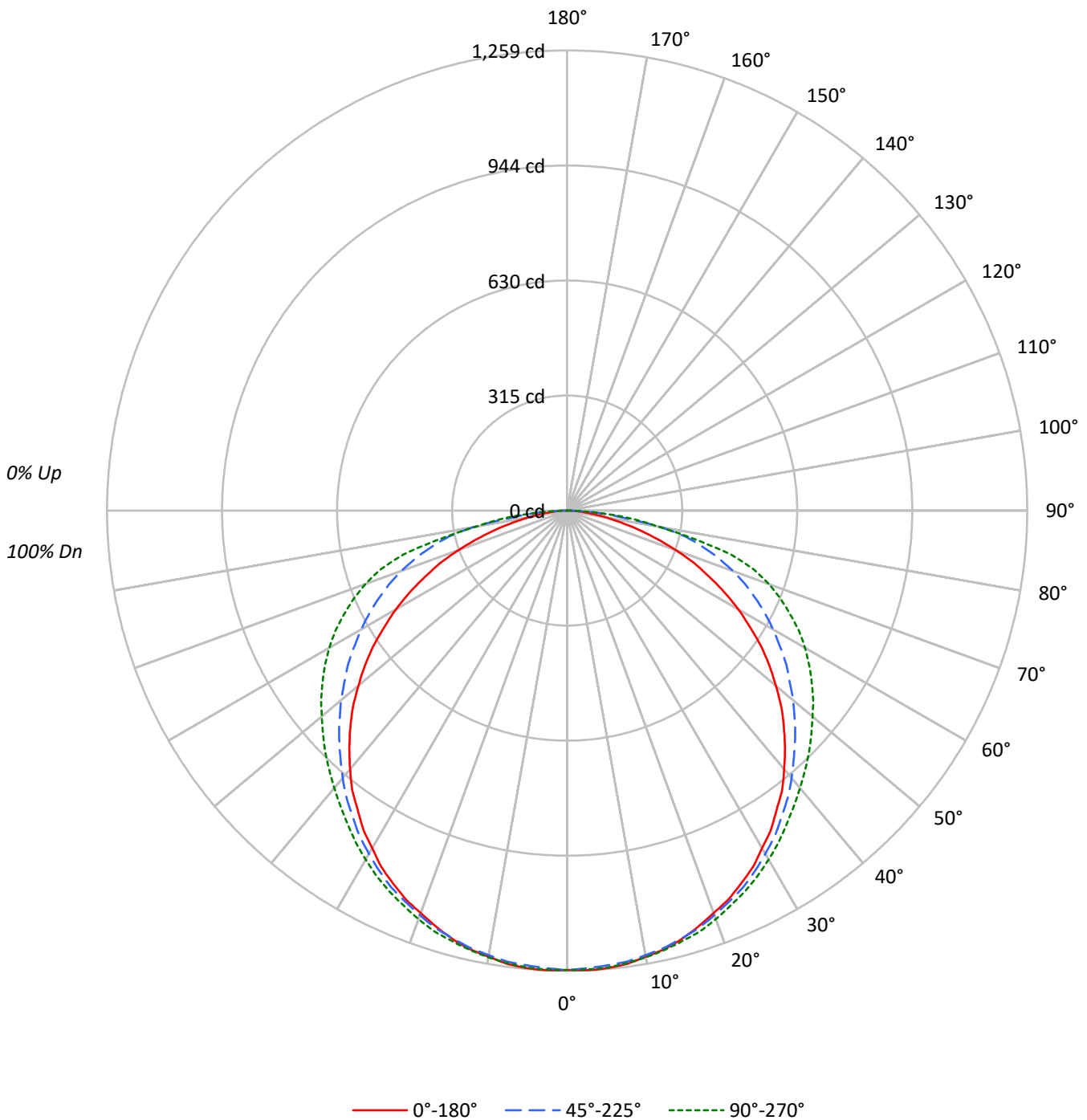
Input Watts (W): 44.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	67	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°	1691	1691	1691
5°	1698	1687	1695
10°	1693	1688	1696
15°	1690	1687	1698
20°	1678	1686	1703
25°	1672	1689	1707
30°	1657	1685	1713
35°	1641	1680	1719
40°	1623	1678	1741
45°	1596	1679	1780
50°	1560	1689	1834
55°	1521	1716	1916
60°	1457	1750	2022
65°	1364	1811	2146
70°	1240	1895	2308
75°	1051	1999	2412
80°	830	2012	1950
85°	613	1531	1715



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.2	3.0
10°-20°	343.2	8.6
20°-30°	524.8	13.1
30°-40°	641.5	16.0
40°-50°	683.7	17.1
50°-60°	653.7	16.4
60°-70°	553.8	13.9
70°-80°	372.2	9.3
80°-90°	105.0	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°	987.2	24.7
0°-40°	1628.6	40.7
0°-60°	2966.1	74.2
0°-90°	3997.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3997.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1257	1257	1257	1257	1257	
5°	1257	1255	1249	1255	1255	119
15°	1213	1213	1211	1221	1219	342
25°	1126	1130	1138	1148	1150	519
35°	999	1007	1023	1043	1047	626
45°	839	853	882	920	936	647
55°	648	672	732	789	817	577
65°	428	472	569	644	674	425
75°	202	276	385	450	464	217
85°	40	81	99	107	111	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1257.0	1257.0	1257.0	1257.0	1257.0
2.5°	1259.0	1259.0	1253.0	1257.0	1257.0
5°	1257.0	1255.0	1249.1	1255.0	1255.0
7.5°	1251.1	1249.1	1245.1	1251.1	1249.1
10°	1239.2	1239.2	1235.2	1241.1	1241.1
12.5°	1229.2	1227.3	1225.3	1233.2	1231.2
15°	1213.4	1213.4	1211.4	1221.3	1219.3
17.5°	1193.5	1195.5	1197.5	1205.4	1207.4
20°	1171.7	1175.7	1177.7	1189.6	1189.6
22.5°	1151.9	1153.9	1157.8	1169.7	1169.7
25°	1126.1	1130.1	1138.0	1147.9	1149.9
27.5°	1100.3	1102.3	1112.2	1126.1	1128.1
30°	1066.6	1072.5	1084.4	1100.3	1102.3
32.5°	1036.8	1042.8	1056.7	1072.5	1076.5
35°	999.1	1007.1	1022.9	1042.8	1046.8
37.5°	965.4	971.4	991.2	1013.0	1019.0
40°	924.0	935.7	955.5	981.3	991.2
42.5°	882.3	894.2	918.0	951.5	963.4
45°	838.7	852.6	882.3	920.0	935.7
47.5°	795.0	810.9	844.6	888.3	906.1
50°	745.4	765.3	806.9	856.5	876.4
52.5°	697.8	721.6	767.3	822.8	848.6
55°	648.2	672.0	731.6	789.1	816.9
57.5°	592.7	624.4	689.9	755.4	785.1
60°	541.3	570.9	650.2	721.6	751.4
62.5°	485.8	525.5	610.6	685.9	715.7
65°	428.3	471.9	568.9	644.3	674.0
67.5°	376.7	424.3	527.4	602.6	632.4
70°	315.2	374.7	481.8	557.0	586.8
72.5°	257.7	323.1	434.2	507.6	535.4
75°	202.1	275.5	384.6	450.1	464.0
77.5°	150.8	227.9	333.0	360.8	350.9
80°	107.1	182.5	259.7	245.8	251.7
82.5°	69.4	138.9	160.7	182.5	188.2
85°	39.7	81.3	99.2	107.1	111.1
87.5°	17.9	29.8	39.7	39.7	37.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)