

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: P474367

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474367
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-60-HRP-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS W/ HRP INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

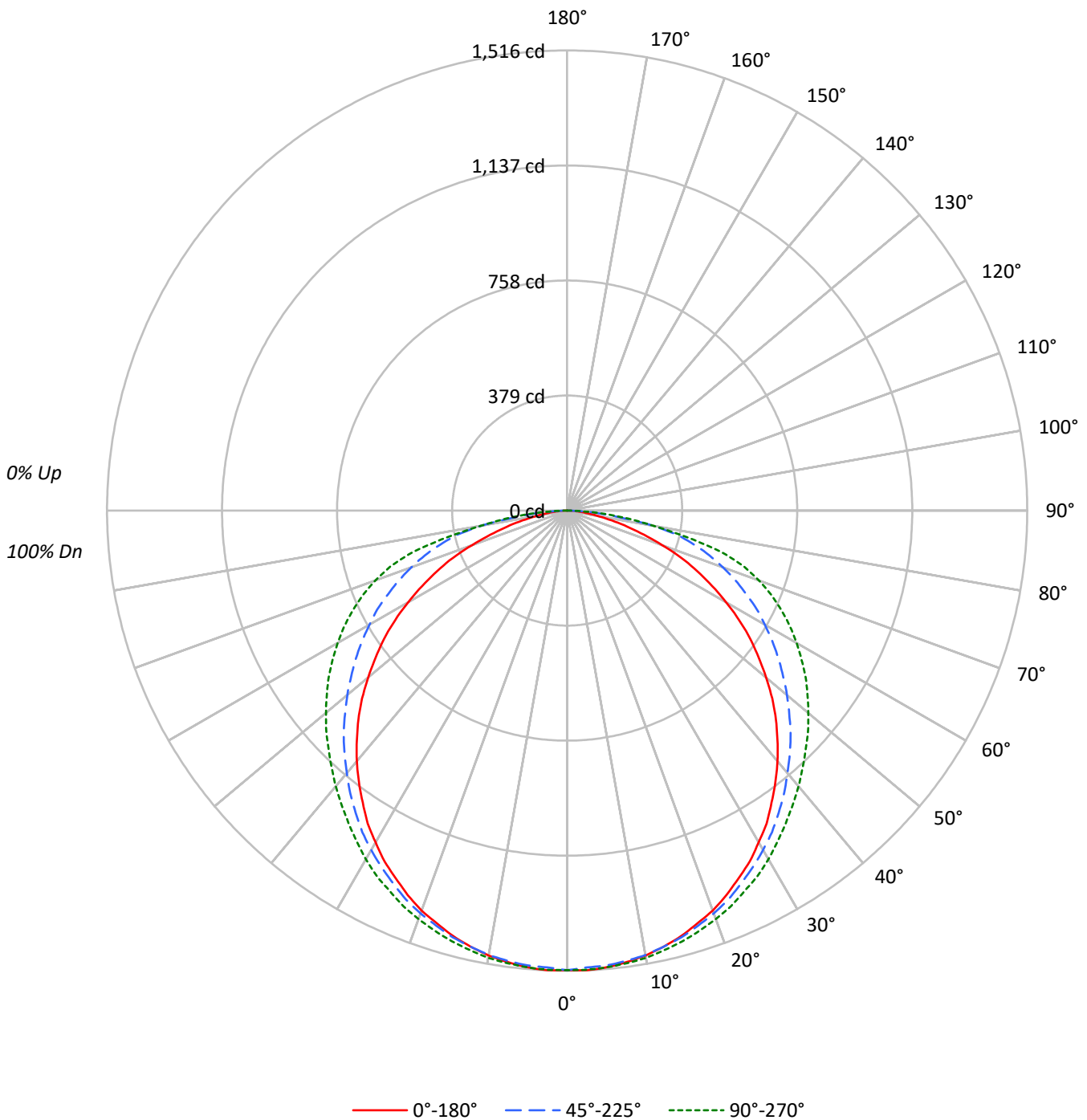
Lumens per Lamp: N/A
Luminaire Lumens: 4666.3 lumens
Efficiency: N/A
Efficacy: 100.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.3
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°	2037	2037	2037
5°	2040	2032	2040
10°	2034	2031	2044
15°	2022	2027	2046
20°	2008	2022	2050
25°	1984	2013	2053
30°	1961	2006	2061
35°	1929	1996	2063
40°	1894	1983	2083
45°	1851	1981	2115
50°	1791	1979	2171
55°	1727	1993	2250
60°	1629	2024	2350
65°	1505	2071	2482
70°	1314	2144	2644
75°	1066	2255	2732
80°	788	2211	2211
85°	604	1629	1839



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.4	3.1
10°-20°	411.9	8.8
20°-30°	627.0	13.4
30°-40°	761.3	16.3
40°-50°	804.3	17.2
50°-60°	759.0	16.3
60°-70°	631.1	13.5
70°-80°	415.2	8.9
80°-90°	113.2	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°	1182.3	25.3
0°-40°	1943.6	41.7
0°-60°	3506.9	75.2
0°-90°	4666.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4666.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1514	1514	1514	1514	1514	
5°	1510	1510	1504	1510	1510	143
15°	1451	1453	1455	1469	1469	409
25°	1336	1344	1356	1379	1383	616
35°	1174	1188	1215	1246	1256	735
45°	973	992	1041	1092	1112	749
55°	736	768	850	930	959	656
65°	473	528	651	746	780	467
75°	205	299	434	514	526	221
85°	39	86	106	117	119	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1514.0	1514.0	1514.0	1514.0	1514.0
2.5°	1516.0	1514.0	1506.2	1514.0	1514.0
5°	1510.2	1510.2	1504.2	1510.2	1510.2
7.5°	1500.4	1500.4	1496.3	1504.2	1504.2
10°	1488.5	1488.5	1486.7	1496.3	1496.3
12.5°	1471.1	1472.9	1471.1	1482.7	1482.7
15°	1451.4	1453.4	1455.4	1469.1	1469.1
17.5°	1426.2	1430.0	1434.0	1449.4	1451.4
20°	1402.7	1404.5	1412.3	1430.0	1432.0
22.5°	1371.4	1377.2	1387.1	1404.5	1410.5
25°	1336.1	1344.0	1355.8	1379.2	1383.1
27.5°	1303.1	1308.9	1324.5	1350.0	1357.8
30°	1262.0	1271.8	1291.2	1316.7	1326.5
32.5°	1222.9	1232.7	1256.1	1283.4	1291.2
35°	1174.1	1187.8	1215.0	1246.3	1256.1
37.5°	1127.2	1140.9	1174.1	1209.2	1221.1
40°	1078.3	1093.9	1129.2	1170.1	1185.8
42.5°	1025.6	1047.0	1086.1	1131.0	1148.7
45°	972.8	992.5	1041.2	1091.9	1111.6
47.5°	916.3	939.8	992.5	1053.0	1076.5
50°	855.7	885.0	945.6	1011.9	1037.4
52.5°	795.2	828.3	896.6	970.8	998.3
55°	736.4	767.7	849.7	929.9	959.2
57.5°	672.1	711.2	801.0	886.8	916.3
60°	605.5	648.6	752.1	841.9	873.2
62.5°	539.1	588.1	705.2	795.2	828.3
65°	472.8	527.5	650.6	746.3	779.5
67.5°	408.2	468.8	599.7	695.5	728.6
70°	334.0	410.2	545.0	638.8	672.1
72.5°	265.7	353.7	492.2	580.3	609.5
75°	205.1	298.9	433.7	513.7	525.5
77.5°	150.4	244.2	373.1	400.4	402.4
80°	101.7	195.3	285.3	281.3	285.3
82.5°	66.4	146.6	179.6	201.3	203.1
85°	39.1	86.0	105.5	117.3	119.1
87.5°	19.4	29.3	37.1	39.1	42.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)