

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: P473969

Luminaire Tested: **24CZ2-30HE-S-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473969
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30HE-S-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

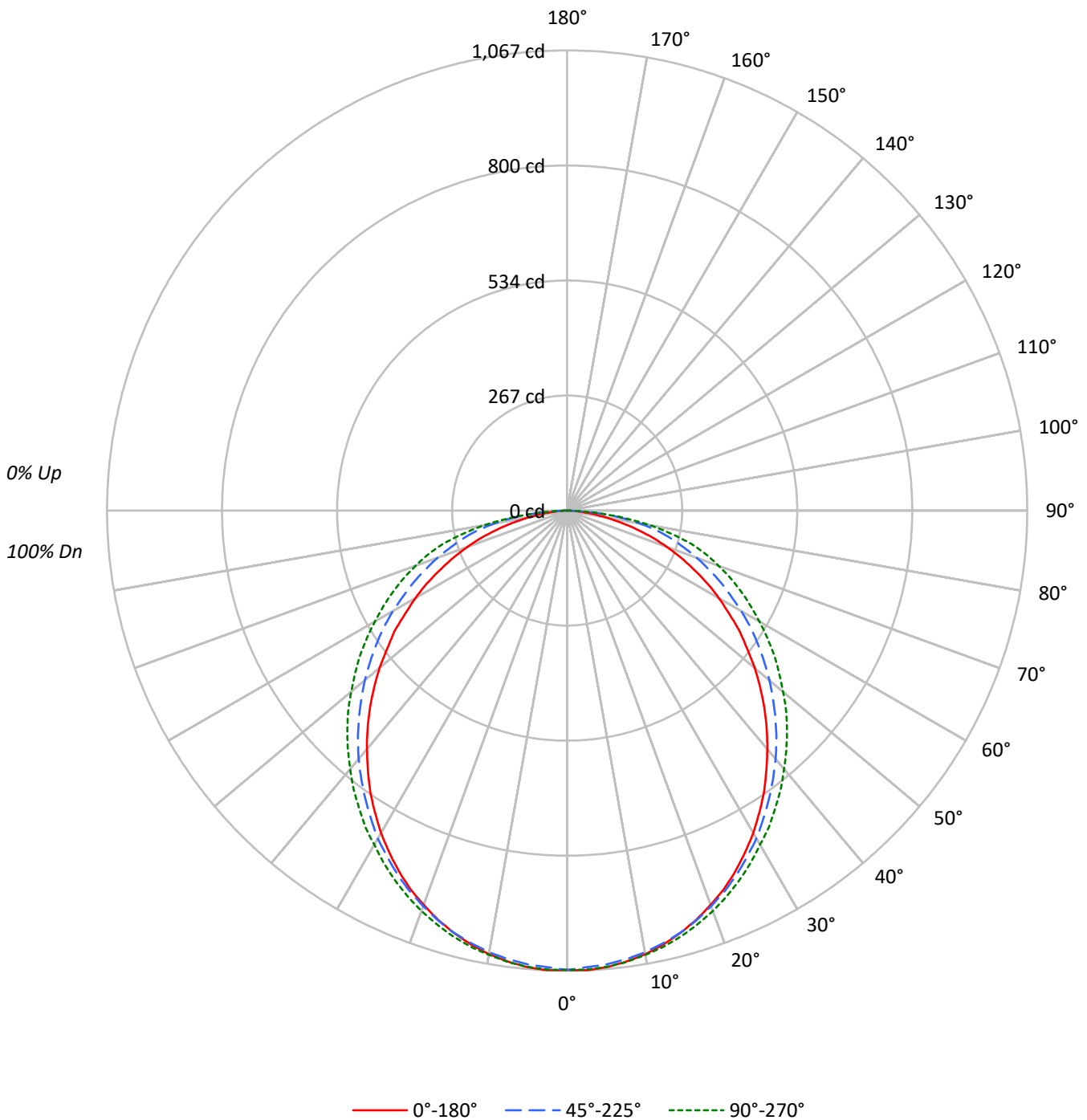
Lumens per Lamp: N/A
Luminaire Lumens: 3051.4 lumens
Efficiency: N/A
Efficacy: 136.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 22.3
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	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	38	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1433	1433	1433
5°	1435	1426	1434
10°	1427	1421	1429
15°	1412	1412	1424
20°	1393	1397	1415
25°	1370	1382	1403
30°	1341	1364	1390
35°	1307	1340	1382
40°	1268	1320	1374
45°	1230	1300	1371
50°	1189	1282	1368
55°	1146	1266	1376
60°	1094	1254	1385
65°	1036	1249	1419
70°	966	1256	1469
75°	860	1292	1548
80°	703	1320	1511
85°	496	1153	1176



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.7	3.3
10°-20°	286.8	9.4
20°-30°	429.9	14.1
30°-40°	512.0	16.8
40°-50°	527.9	17.3
50°-60°	481.7	15.8
60°-70°	385.2	12.6
70°-80°	251.6	8.2
80°-90°	75.5	2.5
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°	817.3	26.8
0°-40°	1329.3	43.6
0°-60°	2339.0	76.7
0°-90°	3051.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3051.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1065	1065	1065	1065	1065	
5°	1063	1060	1056	1063	1062	101
15°	1014	1014	1013	1022	1022	286
25°	923	924	931	944	945	425
35°	796	801	816	836	842	497
45°	647	658	683	712	721	499
55°	489	503	540	575	586	435
65°	325	347	392	431	446	323
75°	165	193	249	289	298	176
85°	32	58	75	76	76	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1065.1	1065.1	1065.1	1065.1	1065.1
2.5°	1066.6	1065.1	1059.5	1066.1	1065.1
5°	1062.6	1060.5	1056.0	1062.6	1061.6
7.5°	1054.5	1053.5	1049.0	1056.5	1055.5
10°	1044.5	1043.5	1040.0	1047.5	1046.0
12.5°	1030.5	1030.0	1027.5	1036.5	1035.5
15°	1013.9	1014.4	1013.4	1022.0	1022.0
17.5°	994.9	994.4	996.4	1006.9	1005.9
20°	972.8	973.3	975.8	987.9	987.9
22.5°	949.8	949.3	954.8	966.8	967.8
25°	922.7	924.2	930.7	944.3	945.3
27.5°	893.6	896.2	904.2	919.7	921.2
30°	863.1	866.1	878.1	892.6	894.6
32.5°	829.5	836.0	847.0	865.6	870.6
35°	795.9	801.4	816.0	836.5	841.5
37.5°	758.8	767.8	784.4	806.9	813.5
40°	722.2	731.3	751.8	775.4	782.4
42.5°	685.1	694.7	718.2	744.8	752.3
45°	646.6	658.1	683.1	711.7	720.7
47.5°	607.0	620.5	647.6	678.6	688.7
50°	567.9	581.4	612.5	644.5	653.6
52.5°	525.8	542.8	575.9	610.5	619.5
55°	488.7	502.7	539.8	575.4	586.4
57.5°	445.1	464.1	503.7	539.8	550.3
60°	406.5	424.0	466.1	502.7	514.7
62.5°	367.4	385.4	427.5	469.1	480.2
65°	325.3	347.3	392.4	431.0	445.6
67.5°	285.2	308.2	354.4	395.4	410.5
70°	245.6	269.1	319.3	361.4	373.4
72.5°	206.5	231.1	283.2	324.3	338.3
75°	165.4	193.0	248.6	288.7	297.7
77.5°	126.8	157.4	213.5	240.6	247.1
80°	90.7	124.3	170.4	190.0	195.0
82.5°	59.6	92.2	127.3	137.8	136.3
85°	32.1	57.6	74.7	76.2	76.2
87.5°	12.5	23.1	23.6	18.0	17.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)