

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: P473761

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473761
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

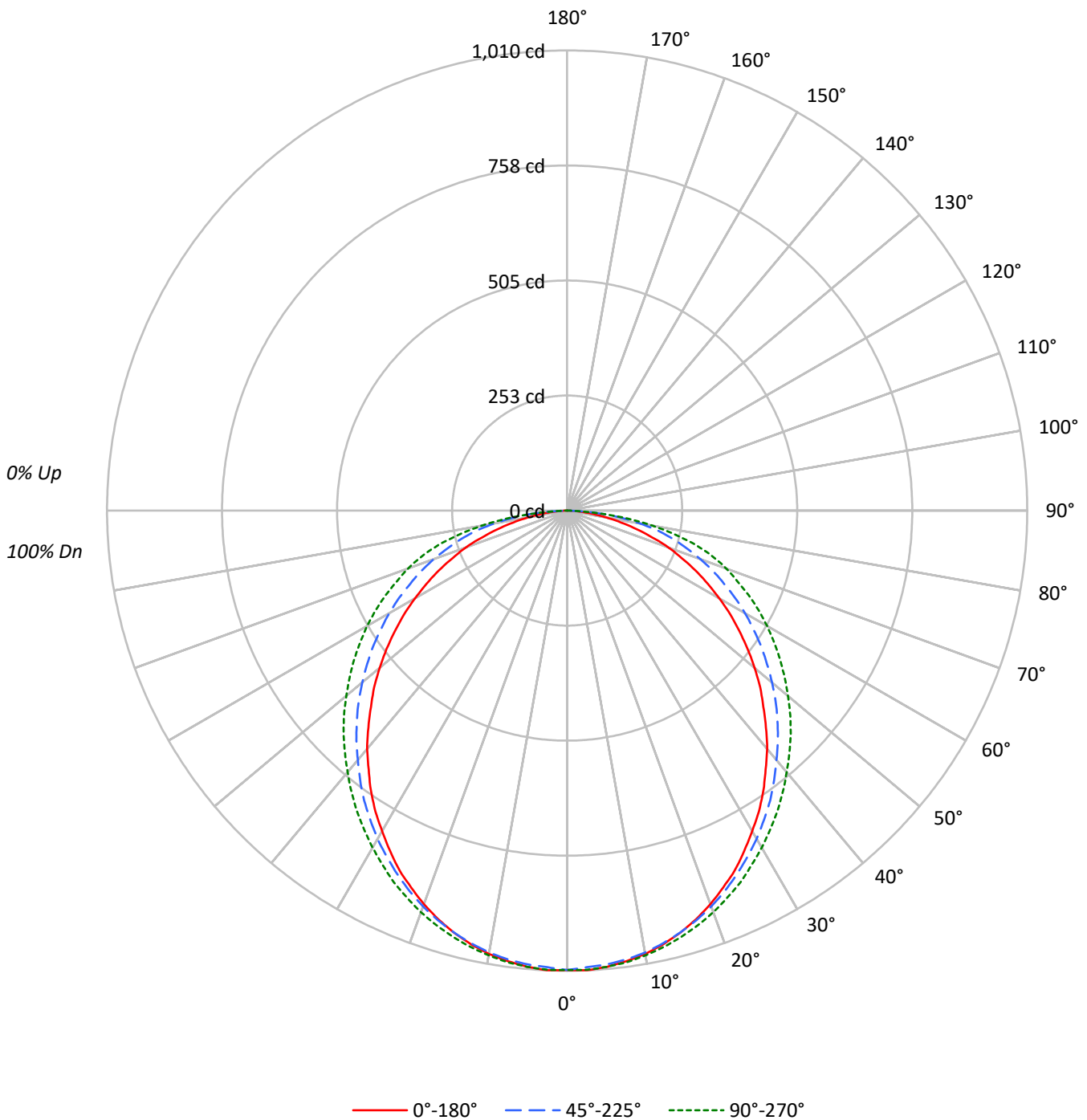
Lumens per Lamp: N/A
Luminaire Lumens: 2918.1 lumens
Efficiency: N/A
Efficacy: 123.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.6
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	89	82	76	95	88	81	75	84	78	74	81	76	72	78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1357	1357	1357
5°	1358	1350	1358
10°	1350	1345	1354
15°	1336	1336	1349
20°	1316	1324	1343
25°	1293	1308	1337
30°	1262	1293	1327
35°	1234	1276	1322
40°	1200	1255	1317
45°	1159	1242	1320
50°	1124	1229	1324
55°	1083	1220	1339
60°	1038	1214	1364
65°	989	1210	1399
70°	931	1222	1463
75°	819	1248	1522
80°	683	1257	1468
85°	488	1078	1091



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.3	3.3
10°-20°	271.5	9.3
20°-30°	407.3	14.0
30°-40°	486.3	16.7
40°-50°	503.7	17.3
50°-60°	463.7	15.9
60°-70°	374.1	12.8
70°-80°	244.4	8.4
80°-90°	71.7	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°	774.2	26.5
0°-40°	1260.5	43.2
0°-60°	2228.0	76.3
0°-90°	2918.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2918.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1008	1008	1008	1008	1008	
5°	1005	1004	1000	1006	1005	95
15°	959	959	959	968	968	270
25°	871	873	881	897	900	401
35°	751	758	777	798	805	469
45°	609	624	653	682	694	471
55°	462	481	520	558	571	413
65°	311	332	380	423	439	307
75°	158	187	240	281	293	168
85°	32	55	70	74	71	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1008.4	1008.4	1008.4	1008.4	1008.4
2.5°	1009.8	1008.4	1003.2	1009.3	1008.9
5°	1005.1	1004.1	999.9	1005.6	1005.1
7.5°	997.5	997.1	993.8	999.9	999.9
10°	988.1	987.2	984.8	991.9	991.4
12.5°	974.9	974.4	973.0	981.5	981.0
15°	959.4	959.4	958.9	968.3	968.3
17.5°	940.5	941.0	942.9	953.7	954.2
20°	919.3	921.2	924.9	937.2	938.1
22.5°	895.2	899.0	904.2	917.9	919.3
25°	871.2	873.1	881.1	897.1	900.4
27.5°	842.0	846.7	857.1	873.6	876.9
30°	812.3	818.9	832.1	849.0	854.2
32.5°	783.0	788.7	804.3	823.6	829.7
35°	751.0	757.6	776.9	798.1	804.7
37.5°	715.6	726.0	746.3	770.8	777.9
40°	683.1	692.5	714.7	742.0	749.6
42.5°	645.9	657.6	684.5	712.3	721.8
45°	609.1	624.2	652.9	682.2	693.9
47.5°	574.7	586.9	620.9	653.9	664.2
50°	537.0	551.1	586.9	621.8	632.7
52.5°	499.7	516.7	553.0	589.8	601.5
55°	461.5	481.3	520.0	558.2	570.9
57.5°	424.8	444.6	484.6	525.2	538.4
60°	385.6	406.8	451.2	490.3	506.8
62.5°	347.9	369.1	415.8	458.2	473.8
65°	310.7	331.9	380.0	423.3	439.4
67.5°	272.0	295.1	346.5	388.5	404.0
70°	236.7	258.8	310.7	355.5	372.0
72.5°	196.1	222.5	275.3	319.6	335.2
75°	157.5	187.2	240.0	281.4	292.8
77.5°	121.6	151.3	204.1	235.2	242.3
80°	88.2	118.3	162.2	183.9	189.5
82.5°	57.0	88.2	117.4	132.0	133.9
85°	31.6	54.7	69.8	74.0	70.7
87.5°	11.3	20.7	20.3	16.5	13.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)