

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: P474886

Luminaire Tested: **22CZ2-39HE-S-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474886
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39HE-S-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

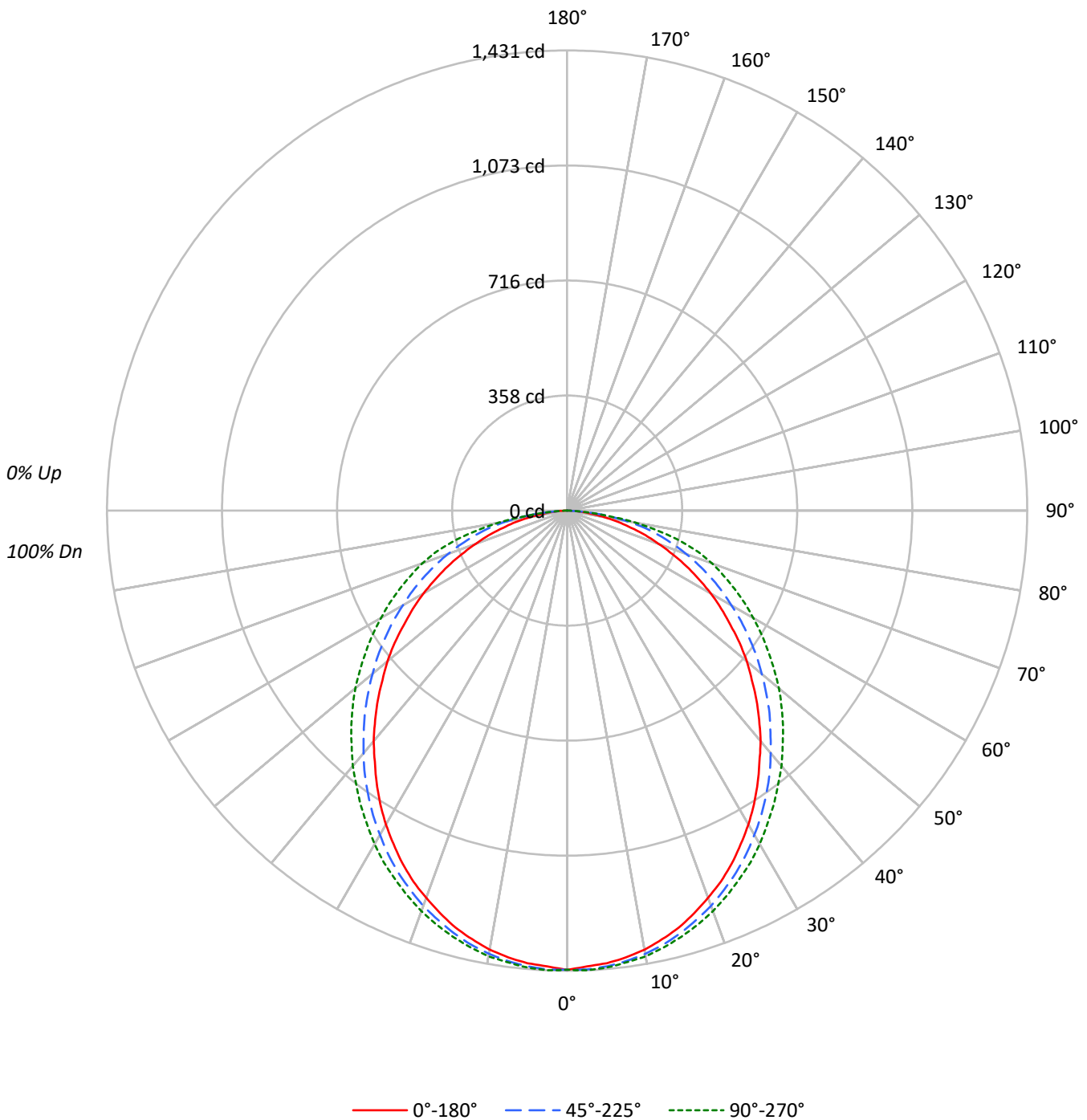
Lumens per Lamp: N/A
Luminaire Lumens: 3934.5 lumens
Efficiency: N/A
Efficacy: 138.1 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 28.5
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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	88	86	83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3843	3843	3843
5°	3817	3843	3853
10°	3788	3824	3845
15°	3740	3791	3822
20°	3670	3746	3796
25°	3596	3689	3757
30°	3503	3618	3722
35°	3394	3544	3675
40°	3288	3458	3642
45°	3167	3384	3613
50°	3053	3309	3599
55°	2908	3243	3582
60°	2778	3177	3597
65°	2607	3140	3650
70°	2382	3102	3768
75°	2139	3079	3772
80°	1801	2907	3349
85°	1352	1970	1822



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.9	3.4
10°-20°	383.1	9.7
20°-30°	571.2	14.5
30°-40°	674.0	17.1
40°-50°	686.7	17.5
50°-60°	619.3	15.7
60°-70°	486.3	12.4
70°-80°	304.1	7.7
80°-90°	75.0	1.9
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°	1089.2	27.7
0°-40°	1763.2	44.8
0°-60°	3069.1	78.0
0°-90°	3934.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3934.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1428	1428	1428	1428	1428	
5°	1413	1416	1422	1425	1426	134
15°	1342	1347	1361	1370	1372	378
25°	1211	1218	1242	1261	1265	557
35°	1033	1047	1079	1108	1119	646
45°	832	846	889	932	949	642
55°	620	640	691	745	764	556
65°	409	431	493	548	573	404
75°	206	234	296	347	363	220
85°	44	56	64	63	59	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1428.2	1428.2	1428.2	1428.2	1428.2
2.5°	1418.7	1421.5	1428.2	1431.1	1431.1
5°	1413.0	1415.8	1422.5	1425.4	1426.3
7.5°	1401.6	1405.4	1413.0	1416.8	1416.8
10°	1386.3	1391.1	1399.6	1405.4	1407.3
12.5°	1365.4	1371.1	1382.5	1389.2	1391.1
15°	1342.5	1347.3	1360.6	1370.1	1372.0
17.5°	1313.0	1320.6	1334.9	1347.3	1350.1
20°	1281.6	1290.2	1308.2	1322.5	1325.4
22.5°	1249.2	1255.9	1275.9	1293.0	1296.8
25°	1211.1	1217.8	1242.5	1260.6	1265.4
27.5°	1169.2	1180.7	1205.4	1226.4	1234.0
30°	1127.3	1138.8	1164.5	1189.2	1197.8
32.5°	1081.6	1094.0	1123.5	1149.2	1157.8
35°	1033.1	1047.4	1078.8	1108.3	1118.8
37.5°	982.6	998.8	1034.0	1065.4	1076.9
40°	936.0	947.4	984.5	1020.7	1036.9
42.5°	883.6	898.8	936.0	976.9	992.1
45°	832.2	846.5	889.3	932.1	949.3
47.5°	778.9	796.9	839.8	887.4	904.5
50°	729.3	744.6	790.3	840.7	859.8
52.5°	676.0	692.2	741.7	794.1	811.2
55°	619.8	639.8	691.3	744.6	763.6
57.5°	568.4	587.5	641.7	697.0	717.0
60°	516.1	535.1	590.3	646.5	668.4
62.5°	460.8	482.7	542.7	597.0	621.7
65°	409.4	431.3	493.2	548.4	573.2
67.5°	355.1	380.9	442.7	500.8	525.6
70°	302.8	333.2	394.2	451.3	478.9
72.5°	256.1	280.9	344.7	404.7	427.5
75°	205.7	234.2	296.1	346.6	362.8
77.5°	162.8	187.6	246.6	279.9	290.4
80°	116.2	143.8	187.6	207.6	216.1
82.5°	77.1	100.0	127.6	131.4	129.5
85°	43.8	56.2	63.8	62.8	59.0
87.5°	17.1	19.0	14.3	8.6	6.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)