

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: P475490

Luminaire Tested: **14CZ2-44-SQR-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475490
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-44-SQR-UNV-L830-CD1-U
Description: 1'X4' TROFFER LED MODULE, SQUARE LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

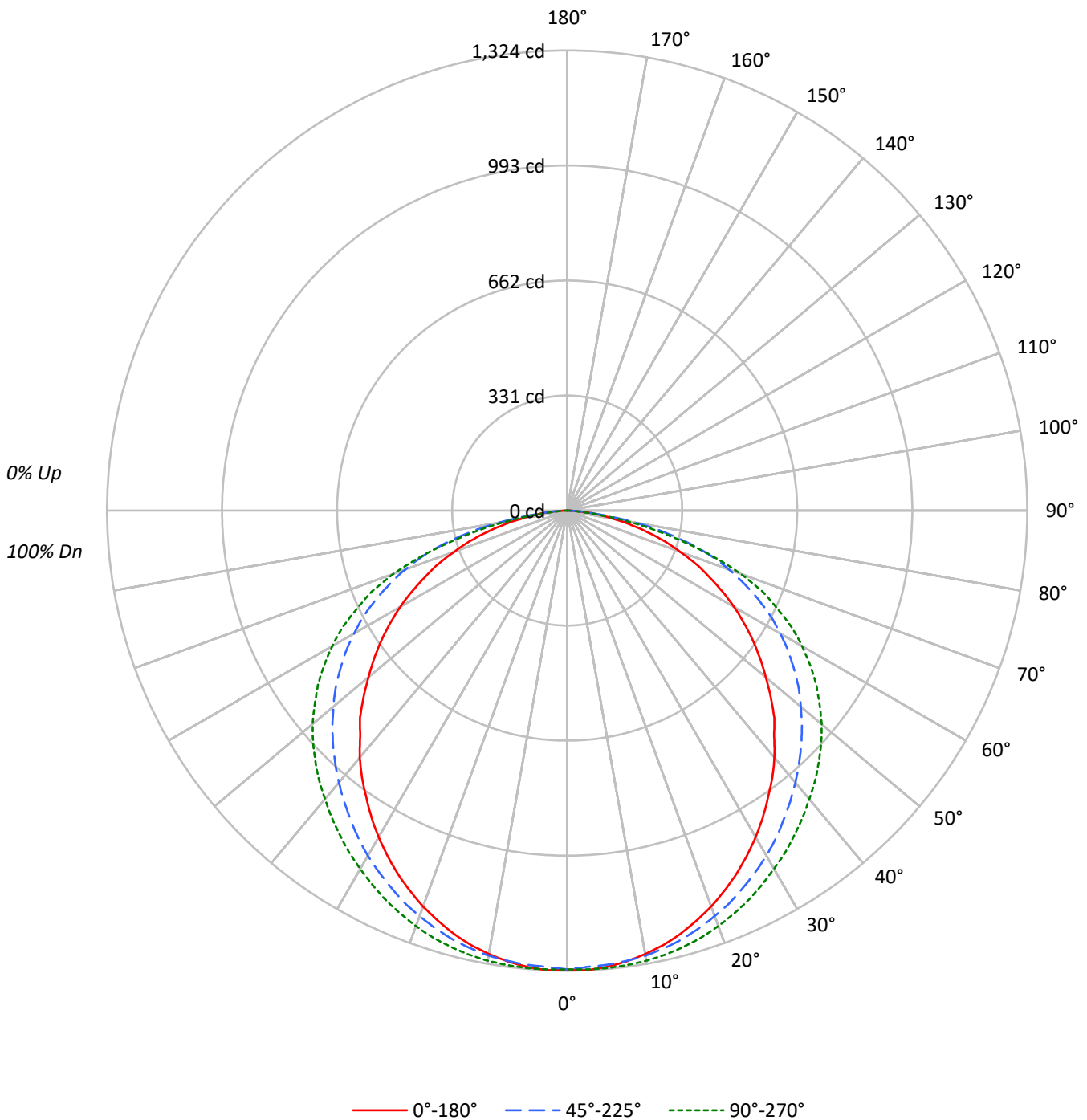
Lumens per Lamp: N/A
Luminaire Lumens: 4145.1 lumens
Efficiency: N/A
Efficacy: 119.8 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.34 / 1.43
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 34.6
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	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	74	81	76	72	77	74	70	68
3	89	78	69	63	86	76	68	62	73	67	61	70	65	60	68	63	59	57
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	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	43	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	37	31	27	25
10	52	38	30	25	50	38	30	25	37	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3553	3553	3553
5°	3560	3544	3569
10°	3540	3553	3595
15°	3512	3557	3619
20°	3472	3556	3643
25°	3423	3555	3670
30°	3371	3564	3699
35°	3310	3568	3745
40°	3260	3589	3807
45°	3207	3626	3897
50°	3126	3675	4003
55°	3064	3739	4107
60°	2986	3811	4202
65°	2869	3875	4248
70°	2717	3904	4172
75°	2483	3772	3602
80°	2086	3084	2684
85°	1519	1553	1013



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.4	3.0
10°-20°	361.3	8.7
20°-30°	552.5	13.3
30°-40°	678.1	16.4
40°-50°	729.2	17.6
50°-60°	700.0	16.9
60°-70°	579.9	14.0
70°-80°	347.6	8.4
80°-90°	71.2	1.7
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°	1039.1	25.1
0°-40°	1717.2	41.4
0°-60°	3146.5	75.9
0°-90°	4145.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4145.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1320	1320	1320	1320	1320	
5°	1318	1316	1312	1322	1321	125
15°	1260	1266	1277	1297	1299	355
25°	1153	1172	1197	1229	1236	531
35°	1008	1042	1086	1128	1140	631
45°	843	887	953	1005	1024	648
55°	653	715	797	856	876	583
65°	451	524	609	657	667	447
75°	239	311	363	355	346	252
85°	49	71	50	34	33	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1320.2	1320.2	1320.2	1320.2	1320.2
2.5°	1323.7	1320.2	1314.4	1323.7	1321.4
5°	1317.9	1315.5	1312.0	1322.5	1321.4
7.5°	1308.5	1308.5	1307.3	1320.2	1319.0
10°	1295.6	1298.0	1300.3	1315.5	1315.5
12.5°	1280.4	1282.8	1289.8	1307.3	1308.5
15°	1260.5	1266.4	1276.9	1296.8	1299.1
17.5°	1237.1	1246.5	1260.5	1283.9	1287.4
20°	1212.5	1223.1	1241.8	1267.5	1272.2
22.5°	1183.3	1198.5	1221.9	1248.8	1254.7
25°	1152.8	1171.6	1197.3	1228.9	1235.9
27.5°	1120.1	1142.3	1172.7	1205.5	1213.7
30°	1085.0	1110.7	1147.0	1182.1	1190.3
32.5°	1047.5	1077.9	1117.7	1156.4	1166.9
35°	1007.7	1041.7	1086.1	1128.3	1140.0
37.5°	969.1	1005.4	1054.5	1100.2	1113.0
40°	928.1	966.7	1021.8	1069.7	1083.8
42.5°	881.3	928.1	987.8	1039.3	1055.7
45°	842.7	887.2	952.7	1005.4	1024.1
47.5°	794.7	846.2	916.4	972.6	991.3
50°	746.7	805.2	877.8	936.3	956.2
52.5°	699.9	759.6	840.3	897.7	915.2
55°	653.1	715.1	797.0	855.6	875.5
57.5°	603.9	671.8	754.9	813.4	829.8
60°	554.8	622.7	708.1	764.3	780.7
62.5°	503.3	575.8	661.3	712.8	729.2
65°	450.6	524.3	608.6	656.6	667.1
67.5°	401.4	476.4	552.4	596.9	607.4
70°	345.3	424.9	496.2	529.0	530.2
72.5°	293.8	367.5	435.4	444.8	442.4
75°	238.8	311.3	362.8	354.6	346.4
77.5°	184.9	258.7	285.6	262.2	256.3
80°	134.6	201.3	199.0	176.7	173.2
82.5°	92.5	139.3	114.7	93.6	86.6
85°	49.2	71.4	50.3	33.9	32.8
87.5°	18.7	17.6	10.5	7.0	7.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)