

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: P475488

Luminaire Tested: **14CZ2-35-SQR-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475488
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-35-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

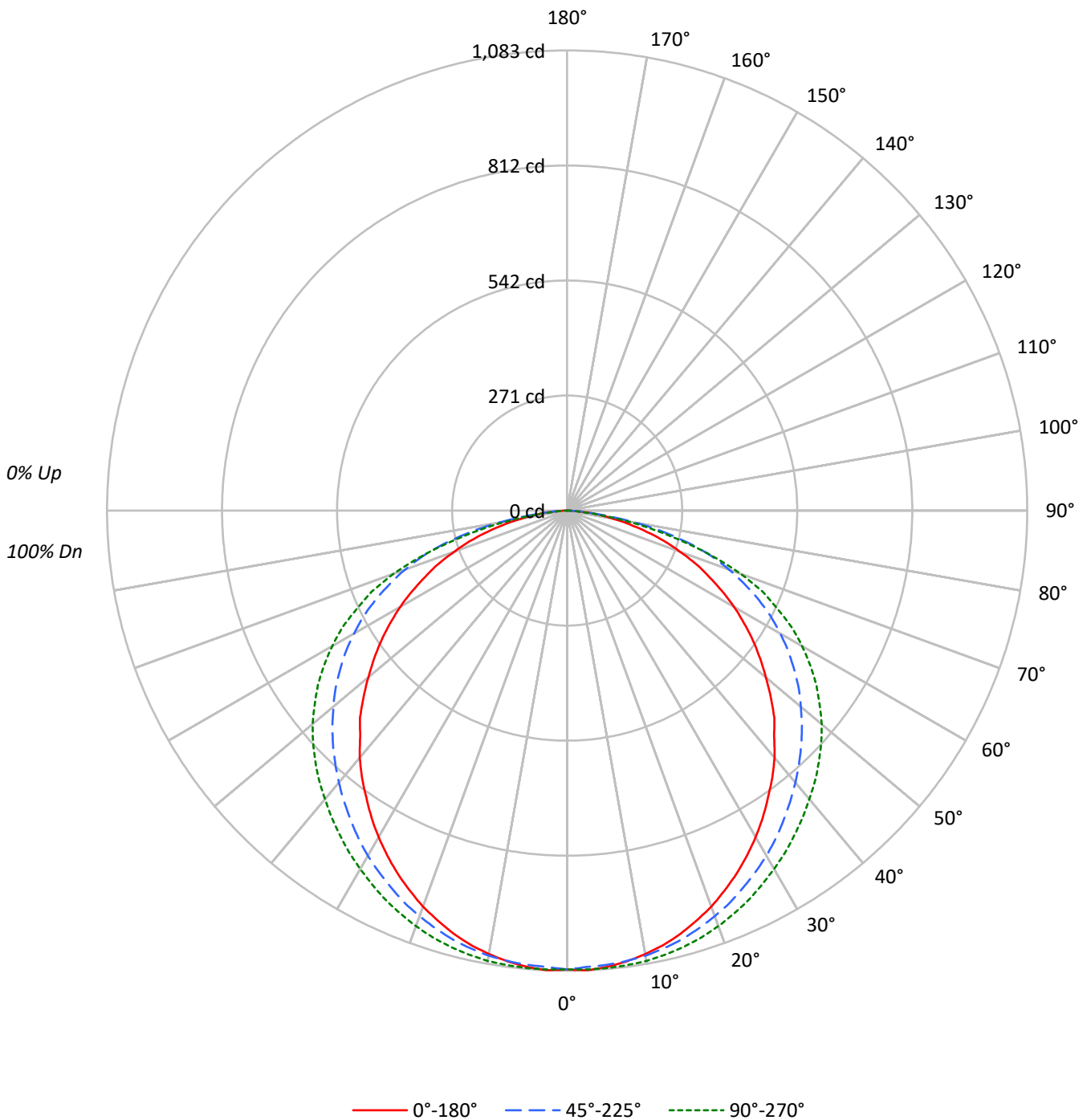
Lumens per Lamp: N/A
Luminaire Lumens: 3390.7 lumens
Efficiency: N/A
Efficacy: 119.0 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.34 / 1.43
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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



TEST NUMBER: P475488
CATALOG NUMBER: 14CZ2-35-SQR-UNV-L830-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P475488

CATALOG NUMBER: 14CZ2-35-SQR-UNV-L830-CD1-U

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°	2906	2906	2906
5°	2912	2899	2920
10°	2896	2907	2940
15°	2873	2910	2961
20°	2840	2909	2980
25°	2800	2908	3002
30°	2758	2915	3026
35°	2708	2919	3063
40°	2667	2936	3114
45°	2623	2966	3188
50°	2557	3006	3275
55°	2506	3059	3360
60°	2442	3117	3437
65°	2347	3170	3475
70°	2222	3194	3412
75°	2031	3086	2947
80°	1706	2523	2196
85°	1241	1272	827



TEST NUMBER: P475488

CATALOG NUMBER: 14CZ2-35-SQR-UNV-L830-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.5	3.0
10°-20°	295.6	8.7
20°-30°	451.9	13.3
30°-40°	554.7	16.4
40°-50°	596.5	17.6
50°-60°	572.6	16.9
60°-70°	474.4	14.0
70°-80°	284.3	8.4
80°-90°	58.2	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°	850.0	25.1
0°-40°	1404.7	41.4
0°-60°	2573.8	75.9
0°-90°	3390.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3390.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1080	1080	1080	1080	1080	
5°	1078	1076	1073	1082	1081	102
15°	1031	1036	1044	1061	1063	291
25°	943	958	979	1005	1011	434
35°	824	852	888	923	932	516
45°	689	726	779	822	838	530
55°	534	585	652	700	716	477
65°	369	429	498	537	546	365
75°	195	255	297	290	283	206
85°	40	58	41	28	27	51
90°	0	0	0	0	0	



TEST NUMBER: P475488

CATALOG NUMBER: 14CZ2-35-SQR-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1079.9	1079.9	1079.9	1079.9	1079.9
2.5°	1082.8	1079.9	1075.1	1082.8	1080.9
5°	1078.0	1076.1	1073.2	1081.8	1080.9
7.5°	1070.4	1070.4	1069.4	1079.9	1079.0
10°	1059.8	1061.7	1063.7	1076.1	1076.1
12.5°	1047.4	1049.3	1055.0	1069.4	1070.4
15°	1031.1	1035.9	1044.5	1060.8	1062.7
17.5°	1012.0	1019.6	1031.1	1050.3	1053.1
20°	991.9	1000.5	1015.8	1036.8	1040.7
22.5°	967.9	980.4	999.5	1021.5	1026.3
25°	943.0	958.3	979.4	1005.3	1011.0
27.5°	916.2	934.4	959.3	986.1	992.8
30°	887.5	908.6	938.2	967.0	973.7
32.5°	856.9	881.8	914.3	945.9	954.5
35°	824.3	852.1	888.5	922.9	932.5
37.5°	792.7	822.4	862.6	899.9	910.5
40°	759.2	790.8	835.8	875.1	886.5
42.5°	720.9	759.2	808.0	850.2	863.6
45°	689.3	725.7	779.3	822.4	837.7
47.5°	650.1	692.2	749.6	795.6	810.9
50°	610.8	658.7	718.0	765.9	782.2
52.5°	572.5	621.3	687.4	734.3	748.7
55°	534.2	585.0	652.0	699.8	716.1
57.5°	494.0	549.5	617.5	665.4	678.8
60°	453.8	509.3	579.2	625.2	638.6
62.5°	411.7	471.0	540.9	583.0	596.5
65°	368.6	428.9	497.8	537.1	545.7
67.5°	328.4	389.7	451.9	488.3	496.9
70°	282.4	347.5	405.9	432.7	433.7
72.5°	240.3	300.6	356.1	363.8	361.9
75°	195.3	254.7	296.8	290.1	283.4
77.5°	151.3	211.6	233.6	214.5	209.7
80°	110.1	164.7	162.8	144.6	141.7
82.5°	75.6	113.9	93.8	76.6	70.8
85°	40.2	58.4	41.2	27.8	26.8
87.5°	15.3	14.4	8.6	5.7	5.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)