

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: P475456

Luminaire Tested: **14CZ2-48HE-HRP-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475456
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-48HE-HRP-UNV-L830-CD1-U
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ HRP INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3814.2 lumens
Efficiency: N/A
Efficacy: 106.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

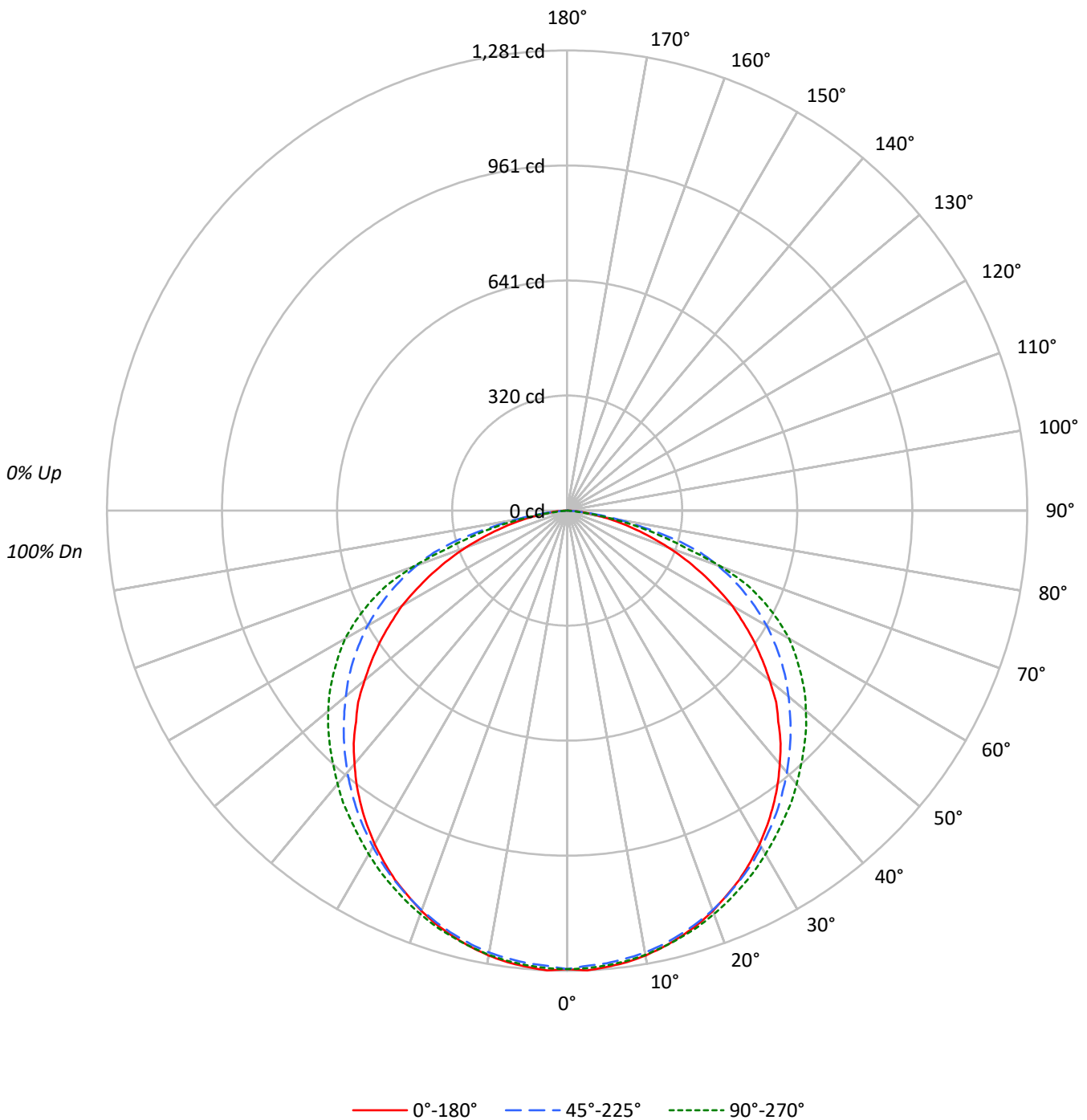
Input Watts (W): 35.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P475456

CATALOG NUMBER: 14CZ2-48HE-HRP-UNV-L830-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P475456

CATALOG NUMBER: 14CZ2-48HE-HRP-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	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					100			
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84					84			
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42					42			
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39	50	43	39	37					37			
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32					32			
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29					29			
9	56	42	34	28	54	41	33	28	40	33	28	39	33	28	38	32	28	26					26			
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23					23			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3435	3435	3435
5°	3445	3417	3432
10°	3437	3414	3430
15°	3419	3402	3425
20°	3396	3389	3423
25°	3367	3374	3423
30°	3330	3359	3432
35°	3288	3350	3451
40°	3235	3343	3491
45°	3164	3348	3550
50°	3081	3367	3633
55°	2978	3409	3729
60°	2858	3454	3841
65°	2639	3487	3862
70°	2353	3503	3577
75°	1971	3245	2779
80°	1497	2281	1826
85°	1056	800	253



TEST NUMBER: P475456

CATALOG NUMBER: 14CZ2-48HE-HRP-UNV-L830-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.8	3.2
10°-20°	346.2	9.1
20°-30°	526.3	13.8
30°-40°	640.7	16.8
40°-50°	680.7	17.8
50°-60°	643.9	16.9
60°-70°	521.7	13.7
70°-80°	286.0	7.5
80°-90°	47.8	1.3
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°	993.3	26.0
0°-40°	1634.1	42.8
0°-60°	2958.6	77.6
0°-90°	3814.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3814.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1277	1277	1277	1277	1277	
5°	1275	1273	1265	1273	1271	121
15°	1227	1225	1221	1231	1230	346
25°	1134	1134	1136	1152	1153	522
35°	1001	1004	1020	1045	1050	626
45°	831	844	880	920	933	643
55°	635	663	727	780	795	567
65°	414	462	548	596	606	410
75°	190	261	312	276	267	203
85°	34	45	26	13	8	43
90°	0	0	0	0	0	



TEST NUMBER: P475456

CATALOG NUMBER: 14CZ2-48HE-HRP-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1276.6	1276.6	1276.6	1276.6	1276.6
2.5°	1281.3	1276.6	1268.3	1276.6	1275.4
5°	1275.4	1273.1	1264.8	1273.1	1270.7
7.5°	1268.3	1266.0	1257.7	1267.2	1264.8
10°	1257.7	1255.4	1249.5	1257.7	1255.4
12.5°	1243.6	1242.4	1236.5	1246.0	1243.6
15°	1227.1	1224.8	1221.2	1230.7	1229.5
17.5°	1208.3	1205.9	1203.6	1215.3	1214.2
20°	1185.9	1184.7	1183.6	1196.5	1195.3
22.5°	1160.0	1160.0	1161.2	1175.3	1175.3
25°	1134.1	1134.1	1136.4	1151.8	1152.9
27.5°	1103.5	1105.8	1110.5	1127.0	1130.6
30°	1071.7	1074.0	1081.1	1099.9	1104.6
32.5°	1037.5	1041.1	1050.5	1072.9	1077.6
35°	1001.0	1004.5	1019.9	1044.6	1050.5
37.5°	962.2	968.0	985.7	1014.0	1024.6
40°	920.9	930.4	951.6	982.2	993.9
42.5°	879.7	888.0	916.2	951.6	963.3
45°	831.4	844.4	879.7	919.8	932.7
47.5°	789.0	800.8	842.0	886.8	902.1
50°	736.0	753.7	804.3	853.8	867.9
52.5°	685.4	709.0	766.7	817.3	833.8
55°	634.8	663.0	726.6	779.6	794.9
57.5°	581.8	612.4	684.2	738.4	754.9
60°	531.1	564.1	641.8	697.2	713.7
62.5°	471.1	512.3	595.9	648.9	663.0
65°	414.5	461.6	547.6	595.9	606.5
67.5°	356.8	412.2	498.2	540.5	544.1
70°	299.1	361.5	445.2	471.1	454.6
72.5°	242.6	312.1	388.6	367.4	348.6
75°	189.6	261.4	312.1	275.6	267.3
77.5°	140.1	214.3	217.9	200.2	194.3
80°	96.6	166.1	147.2	127.2	117.8
82.5°	62.4	102.5	81.3	60.1	54.2
85°	34.2	44.8	25.9	13.0	8.2
87.5°	13.0	8.2	3.5	3.5	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)