

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: P475421

Luminaire Tested: **14CZ2-60HE-RDP-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475421  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-60HE-RDP-UNV-L830-CD1-U  
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ RDP INSERT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3859.5 lumens  
Efficiency: N/A  
Efficacy: 86.5 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

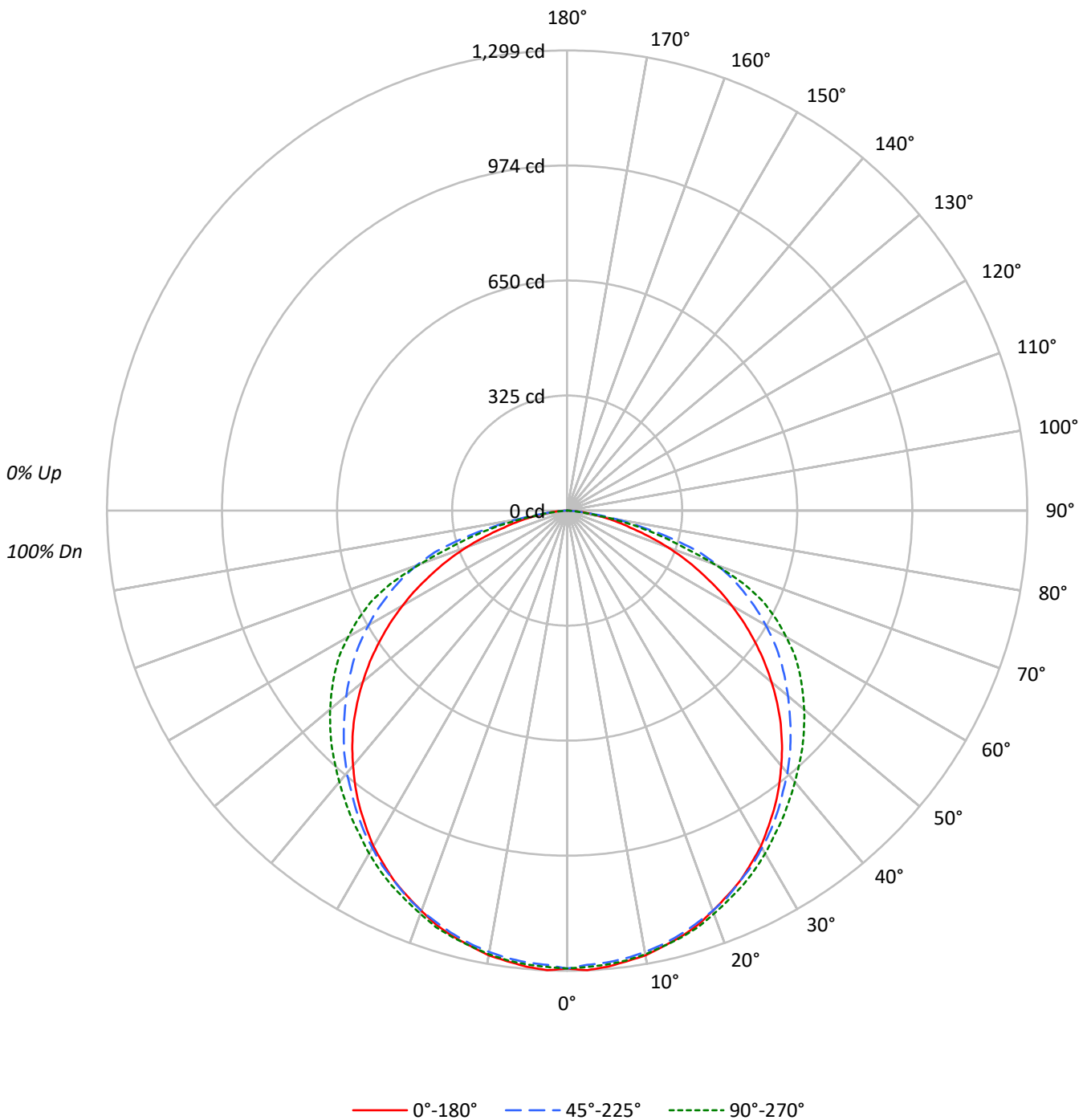
Input Watts (W): 44.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P475421

CATALOG NUMBER: 14CZ2-60HE-RDP-UNV-L830-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P475421

CATALOG NUMBER: 14CZ2-60HE-RDP-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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	50	42	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	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3479	3479	3479
5°	3492	3459	3475
10°	3483	3458	3475
15°	3467	3450	3475
20°	3443	3443	3469
25°	3427	3427	3471
30°	3399	3417	3474
35°	3356	3405	3484
40°	3302	3398	3514
45°	3245	3394	3578
50°	3154	3406	3658
55°	3039	3449	3760
60°	2886	3486	3843
65°	2667	3530	3895
70°	2371	3556	3485
75°	1911	3195	2789
80°	1494	2241	1821
85°	1022	651	466



TEST NUMBER: P475421

CATALOG NUMBER: 14CZ2-60HE-RDP-UNV-L830-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.4	3.2
10°-20°	351.0	9.1
20°-30°	534.5	13.8
30°-40°	651.0	16.9
40°-50°	690.7	17.9
50°-60°	651.9	16.9
60°-70°	526.3	13.6
70°-80°	285.5	7.4
80°-90°	46.2	1.2
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°	1007.9	26.1
0°-40°	1658.9	43.0
0°-60°	3001.5	77.8
0°-90°	3859.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3859.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1293	1293	1293	1293	1293	
5°	1293	1290	1281	1290	1287	123
15°	1244	1241	1238	1248	1248	351
25°	1154	1151	1154	1166	1169	531
35°	1022	1028	1036	1058	1061	639
45°	853	865	892	925	940	657
55°	648	675	735	783	802	579
65°	419	470	554	600	612	415
75°	184	268	307	277	268	201
85°	33	36	21	18	15	43
90°	0	0	0	0	0	



TEST NUMBER: P475421

CATALOG NUMBER: 14CZ2-60HE-RDP-UNV-L830-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1292.7	1292.7	1292.7	1292.7	1292.7
2.5°	1298.7	1292.7	1283.6	1292.7	1289.6
5°	1292.7	1289.6	1280.6	1289.6	1286.6
7.5°	1283.6	1283.6	1274.6	1280.6	1280.6
10°	1274.6	1271.6	1265.5	1274.6	1271.6
12.5°	1259.5	1256.5	1253.5	1262.5	1259.5
15°	1244.4	1241.4	1238.4	1247.5	1247.5
17.5°	1226.4	1223.4	1220.3	1232.4	1232.4
20°	1202.3	1202.3	1202.3	1214.3	1211.3
22.5°	1178.2	1178.2	1181.2	1193.2	1190.2
25°	1154.1	1151.0	1154.1	1166.1	1169.1
27.5°	1123.9	1126.9	1129.9	1142.0	1145.0
30°	1093.8	1096.8	1099.8	1114.9	1117.9
32.5°	1057.6	1063.7	1069.7	1087.8	1087.8
35°	1021.5	1027.5	1036.5	1057.6	1060.6
37.5°	982.3	988.3	1000.4	1024.5	1030.5
40°	940.1	949.2	967.2	991.3	1000.4
42.5°	897.9	910.0	931.1	958.2	970.2
45°	852.7	864.8	891.9	925.1	940.1
47.5°	804.5	819.6	852.7	894.9	907.0
50°	753.3	774.4	813.6	858.8	873.8
52.5°	702.1	726.2	774.4	822.6	837.7
55°	647.8	675.0	735.2	783.4	801.5
57.5°	593.6	623.7	693.0	744.3	762.3
60°	536.3	572.5	647.8	699.1	714.1
62.5°	479.1	521.3	602.6	653.9	665.9
65°	418.8	470.1	554.4	599.6	611.7
67.5°	361.6	421.8	506.2	539.4	539.4
70°	301.3	367.6	452.0	461.0	442.9
72.5°	241.1	316.4	391.7	358.6	343.5
75°	183.8	268.2	307.3	277.2	268.2
77.5°	138.6	217.0	217.0	198.9	192.8
80°	96.4	165.7	144.6	126.6	117.5
82.5°	63.3	93.4	75.3	60.3	51.2
85°	33.1	36.2	21.1	18.1	15.1
87.5°	12.1	6.0	3.0	6.0	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)