

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: P475439

Luminaire Tested: **14CZ2-60HE-RDP-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475439  
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-L840-CD1-U  
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ RDP INSERT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4075.5 lumens  
Efficiency: N/A  
Efficacy: 91.4 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

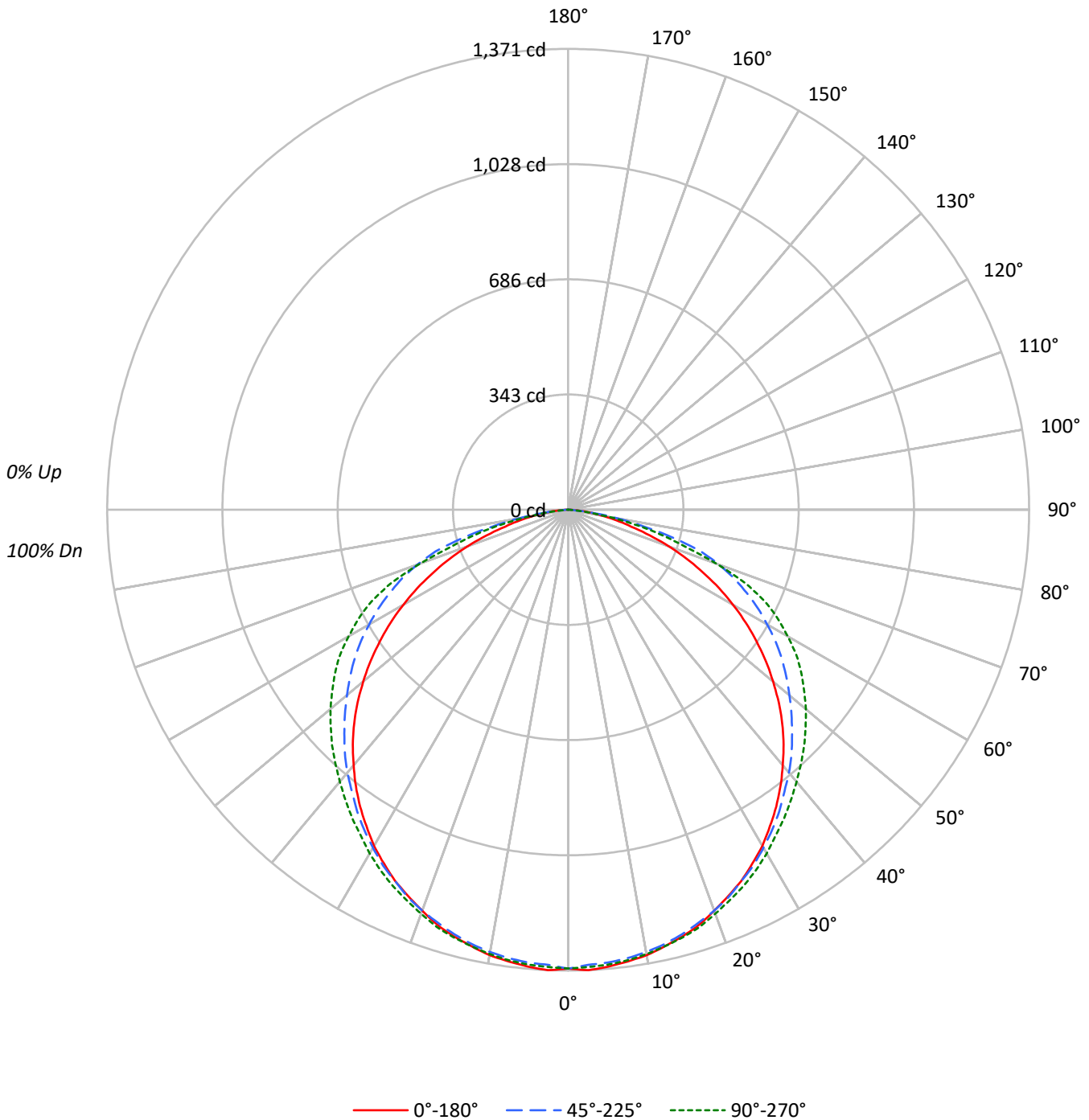
Input Watts (W): 44.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P475439

CATALOG NUMBER: 14CZ2-60HE-RDP-UNV-L840-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P475439

CATALOG NUMBER: 14CZ2-60HE-RDP-UNV-L840-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°	3673	3673	3673
5°	3687	3653	3670
10°	3678	3652	3669
15°	3661	3643	3670
20°	3635	3635	3663
25°	3618	3618	3665
30°	3589	3609	3668
35°	3543	3596	3679
40°	3487	3588	3711
45°	3427	3584	3778
50°	3330	3597	3863
55°	3210	3643	3971
60°	3048	3682	4059
65°	2816	3728	4113
70°	2504	3755	3680
75°	2018	3374	2944
80°	1578	2366	1923
85°	1081	689	491



TEST NUMBER: P475439

CATALOG NUMBER: 14CZ2-60HE-RDP-UNV-L840-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	129.2	3.2
10°-20°	370.7	9.1
20°-30°	564.4	13.8
30°-40°	687.5	16.9
40°-50°	729.4	17.9
50°-60°	688.3	16.9
60°-70°	555.8	13.6
70°-80°	301.5	7.4
80°-90°	48.8	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°	1064.3	26.1
0°-40°	1751.8	43.0
0°-60°	3169.5	77.8
0°-90°	4075.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4075.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1365	1365	1365	1365	1365	
5°	1365	1362	1352	1362	1359	130
15°	1314	1311	1308	1317	1317	371
25°	1219	1216	1219	1231	1234	561
35°	1079	1085	1094	1117	1120	674
45°	900	913	942	977	993	693
55°	684	713	776	827	846	611
65°	442	496	586	633	646	438
75°	194	283	324	293	283	212
85°	35	38	22	19	16	45
90°	0	0	0	0	0	



TEST NUMBER: P475439

CATALOG NUMBER: 14CZ2-60HE-RDP-UNV-L840-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1365.0	1365.0	1365.0	1365.0	1365.0
2.5°	1371.4	1365.0	1355.5	1365.0	1361.8
5°	1365.0	1361.8	1352.3	1361.8	1358.6
7.5°	1355.5	1355.5	1345.9	1352.3	1352.3
10°	1345.9	1342.7	1336.4	1345.9	1342.7
12.5°	1330.0	1326.8	1323.6	1333.2	1330.0
15°	1314.1	1310.9	1307.7	1317.3	1317.3
17.5°	1295.0	1291.8	1288.6	1301.4	1301.4
20°	1269.5	1269.5	1269.5	1282.3	1279.1
22.5°	1244.1	1244.1	1247.3	1260.0	1256.8
25°	1218.6	1215.5	1218.6	1231.4	1234.5
27.5°	1186.8	1190.0	1193.2	1205.9	1209.1
30°	1155.0	1158.2	1161.4	1177.3	1180.5
32.5°	1116.8	1123.2	1129.5	1148.6	1148.6
35°	1078.6	1085.0	1094.5	1116.8	1120.0
37.5°	1037.3	1043.6	1056.4	1081.8	1088.2
40°	992.7	1002.3	1021.4	1046.8	1056.4
42.5°	948.2	960.9	983.2	1011.8	1024.5
45°	900.5	913.2	941.8	976.8	992.7
47.5°	849.5	865.5	900.5	945.0	957.7
50°	795.5	817.7	859.1	906.8	922.7
52.5°	741.4	766.8	817.7	868.6	884.5
55°	684.1	712.7	776.4	827.3	846.4
57.5°	626.8	658.6	731.8	785.9	805.0
60°	566.4	604.5	684.1	738.2	754.1
62.5°	505.9	550.5	636.4	690.5	703.2
65°	442.3	496.4	585.5	633.2	645.9
67.5°	381.8	445.5	534.5	569.5	569.5
70°	318.2	388.2	477.3	486.8	467.7
72.5°	254.5	334.1	413.6	378.6	362.7
75°	194.1	283.2	324.5	292.7	283.2
77.5°	146.4	229.1	229.1	210.0	203.6
80°	101.8	175.0	152.7	133.6	124.1
82.5°	66.8	98.6	79.5	63.6	54.1
85°	35.0	38.2	22.3	19.1	15.9
87.5°	12.7	6.4	3.2	6.4	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)