

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: P475385

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475385
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-60HE-S-UNV-L830-CD1-U
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

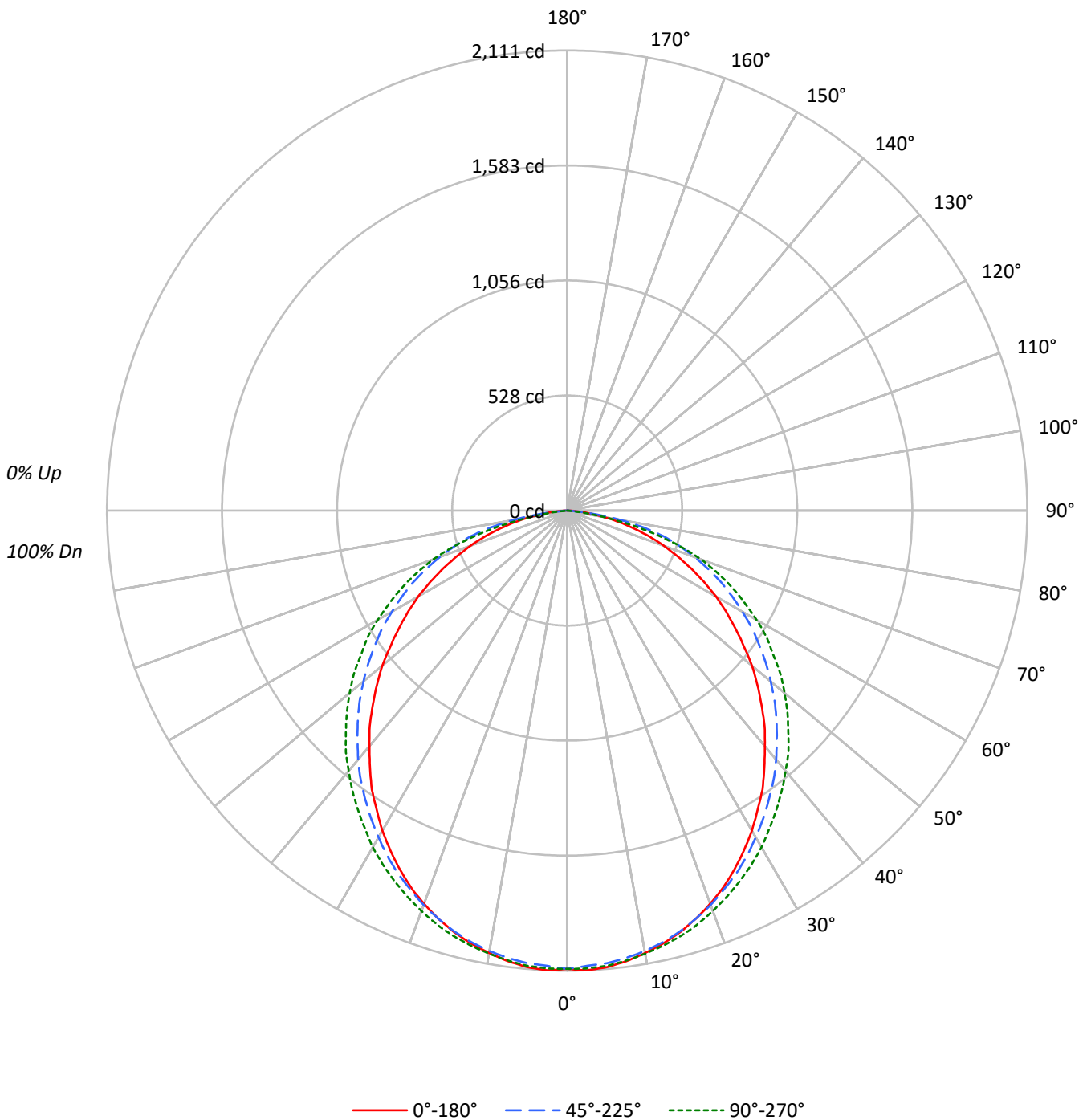
Lumens per Lamp: N/A
Luminaire Lumens: 5876.9 lumens
Efficiency: N/A
Efficacy: 131.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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: P475385
CATALOG NUMBER: 14CZ2-60HE-S-UNV-L830-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P475385

CATALOG NUMBER: 14CZ2-60HE-S-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	98	94	91		94	91	89		90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75		82	77	74		79	75	72	70
3	90	79	71	65	88	78	70	64	75	68	63		72	67	62		70	65	61	59
4	82	70	61	55	80	69	61	54	66	59	54		64	58	53		62	57	52	50
5	76	63	54	47	74	62	53	47	60	52	46		58	51	46		56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	40		52	45	40		50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36		47	41	36		46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26		37	31	26		36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5658	5658	5658
5°	5679	5631	5663
10°	5632	5608	5640
15°	5578	5569	5627
20°	5497	5513	5598
25°	5392	5453	5567
30°	5267	5377	5542
35°	5132	5306	5500
40°	4958	5238	5477
45°	4799	5169	5461
50°	4636	5105	5452
55°	4419	5043	5417
60°	4243	4990	5403
65°	3986	4964	5321
70°	3718	4879	5135
75°	3285	4790	4329
80°	2655	3890	2563
85°	1914	1093	275



TEST NUMBER: P475385

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	198.8	3.4
10°-20°	566.2	9.6
20°-30°	849.3	14.5
30°-40°	1012.4	17.2
40°-50°	1045.4	17.8
50°-60°	952.2	16.2
60°-70°	746.0	12.7
70°-80°	431.6	7.3
80°-90°	75.0	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°	1614.3	27.5
0°-40°	2626.7	44.7
0°-60°	4624.3	78.7
0°-90°	5876.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5876.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2102	2102	2102	2102	2102	
5°	2102	2097	2085	2100	2097	199
15°	2002	1999	1999	2020	2020	564
25°	1816	1822	1837	1872	1875	836
35°	1562	1577	1615	1665	1674	975
45°	1261	1293	1358	1420	1435	974
55°	942	989	1075	1143	1155	844
65°	626	682	780	830	836	620
75°	316	384	461	446	416	337
85°	62	83	35	12	9	76
90°	0	0	0	0	0	



TEST NUMBER: P475385

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2102.5	2102.5	2102.5	2102.5	2102.5
2.5°	2111.3	2102.5	2090.7	2102.5	2102.5
5°	2102.5	2096.6	2084.7	2099.5	2096.6
7.5°	2084.7	2078.8	2070.0	2084.7	2081.8
10°	2061.1	2058.2	2052.3	2070.0	2064.1
12.5°	2034.5	2031.6	2028.6	2046.4	2043.4
15°	2002.1	1999.1	1999.1	2019.8	2019.8
17.5°	1963.7	1963.7	1963.7	1990.3	1990.3
20°	1919.4	1919.4	1925.3	1954.8	1954.8
22.5°	1872.1	1872.1	1881.0	1913.5	1916.4
25°	1816.0	1821.9	1836.7	1872.1	1875.1
27.5°	1757.0	1765.8	1786.5	1824.9	1830.8
30°	1695.0	1703.8	1730.4	1774.7	1783.6
32.5°	1627.0	1641.8	1674.3	1718.6	1727.4
35°	1562.1	1576.8	1615.2	1665.4	1674.3
37.5°	1485.3	1508.9	1556.2	1603.4	1618.2
40°	1411.5	1438.1	1491.2	1547.3	1559.1
42.5°	1340.6	1364.2	1423.3	1485.3	1503.0
45°	1260.9	1293.4	1358.3	1420.3	1435.1
47.5°	1184.1	1216.6	1290.4	1355.4	1370.1
50°	1107.3	1139.8	1219.5	1284.5	1302.2
52.5°	1021.7	1068.9	1148.7	1213.6	1234.3
55°	942.0	989.2	1074.9	1142.8	1154.6
57.5°	865.2	912.4	1006.9	1068.9	1086.7
60°	788.4	835.7	927.2	989.2	1004.0
62.5°	705.7	758.9	853.4	906.5	918.4
65°	626.0	682.1	779.6	829.8	835.7
67.5°	546.3	605.3	699.8	741.2	747.1
70°	472.5	531.5	620.1	658.5	652.6
72.5°	395.7	454.7	540.4	561.1	543.3
75°	316.0	383.9	460.7	445.9	416.4
77.5°	245.1	310.1	360.3	316.0	292.3
80°	171.3	239.2	251.0	194.9	165.4
82.5°	112.2	168.3	135.8	82.7	73.8
85°	62.0	82.7	35.4	11.8	8.9
87.5°	20.7	11.8	5.9	3.0	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)