

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: P475457

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475457
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-60HE-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: 4666.1 lumens
Efficiency: N/A
Efficacy: 104.6 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

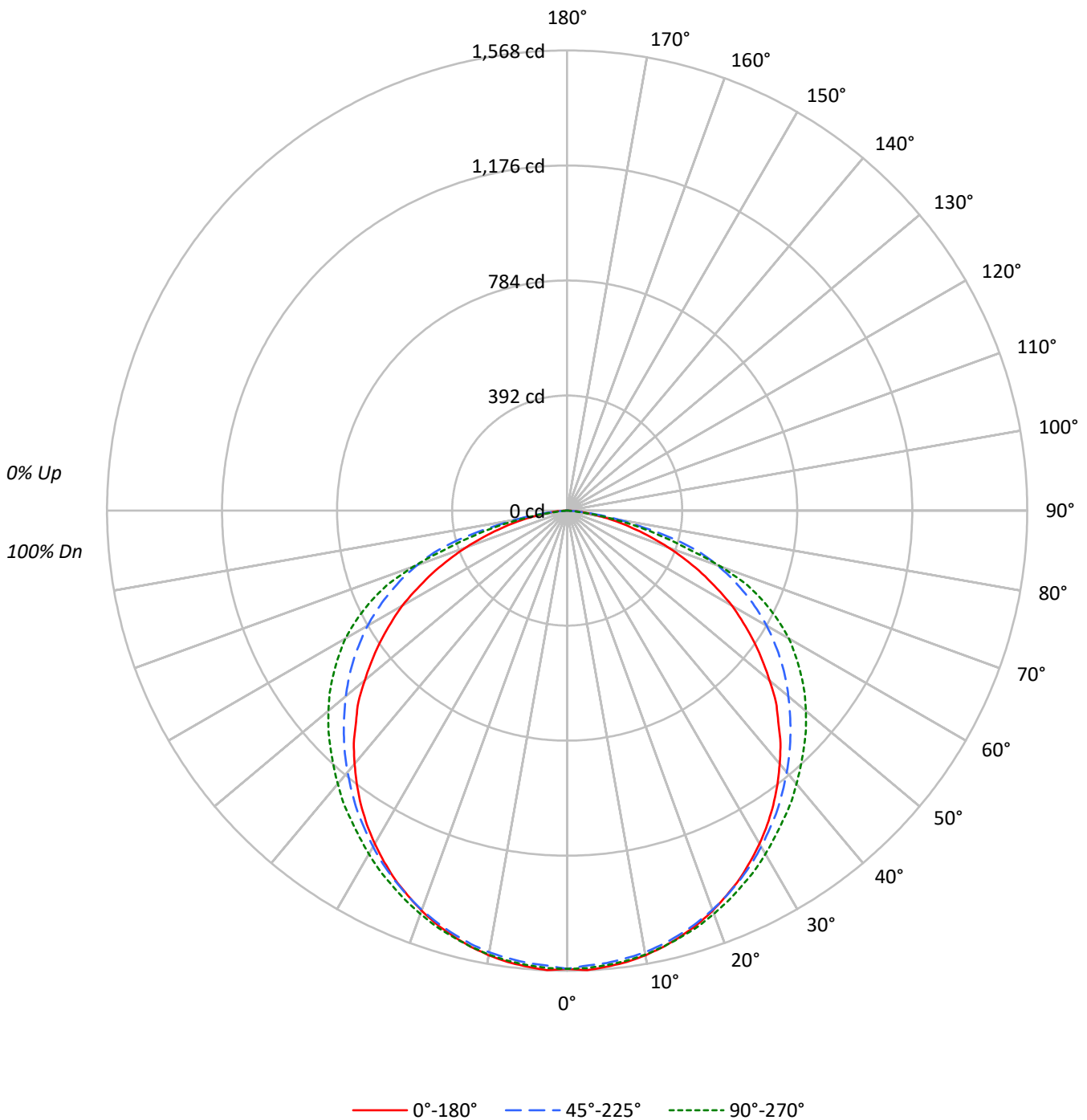
Input Watts (W): 44.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	79	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	39	51	44	39	50	43	39	37
7	64	50	41	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	41	33	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°	4203	4203	4203
5°	4215	4180	4199
10°	4204	4177	4197
15°	4182	4162	4190
20°	4155	4146	4188
25°	4119	4128	4188
30°	4074	4110	4199
35°	4023	4099	4222
40°	3958	4089	4272
45°	3871	4096	4342
50°	3769	4119	4445
55°	3643	4170	4563
60°	3497	4226	4699
65°	3229	4266	4725
70°	2879	4285	4375
75°	2412	3970	3400
80°	1830	2791	2233
85°	1291	979	312



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.8	3.2
10°-20°	423.6	9.1
20°-30°	643.8	13.8
30°-40°	783.9	16.8
40°-50°	832.7	17.8
50°-60°	787.7	16.9
60°-70°	638.2	13.7
70°-80°	349.9	7.5
80°-90°	58.5	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°	1215.2	26.0
0°-40°	1999.0	42.8
0°-60°	3619.5	77.6
0°-90°	4666.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4666.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1562	1562	1562	1562	1562	
5°	1560	1557	1547	1557	1554	148
15°	1501	1498	1494	1506	1504	424
25°	1387	1387	1390	1409	1410	639
35°	1225	1229	1248	1278	1285	766
45°	1017	1033	1076	1125	1141	786
55°	776	811	889	954	972	694
65°	507	565	670	729	742	501
75°	232	320	382	337	327	248
85°	42	55	32	16	10	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1561.7	1561.7	1561.7	1561.7	1561.7
2.5°	1567.5	1561.7	1551.6	1561.7	1560.3
5°	1560.3	1557.4	1547.3	1557.4	1554.5
7.5°	1551.6	1548.8	1538.7	1550.2	1547.3
10°	1538.7	1535.8	1528.6	1538.7	1535.8
12.5°	1521.4	1519.9	1512.7	1524.3	1521.4
15°	1501.2	1498.3	1494.0	1505.5	1504.1
17.5°	1478.2	1475.3	1472.4	1486.8	1485.4
20°	1450.8	1449.4	1447.9	1463.8	1462.3
22.5°	1419.1	1419.1	1420.5	1437.8	1437.8
25°	1387.4	1387.4	1390.3	1409.0	1410.5
27.5°	1349.9	1352.8	1358.6	1378.8	1383.1
30°	1311.0	1313.9	1322.6	1345.6	1351.4
32.5°	1269.3	1273.6	1285.1	1312.5	1318.2
35°	1224.6	1228.9	1247.7	1277.9	1285.1
37.5°	1177.1	1184.3	1205.9	1240.4	1253.4
40°	1126.6	1138.2	1164.1	1201.5	1216.0
42.5°	1076.2	1086.3	1120.9	1164.1	1178.5
45°	1017.1	1033.0	1076.2	1125.2	1141.0
47.5°	965.3	979.7	1030.1	1084.9	1103.6
50°	900.4	922.1	984.0	1044.5	1061.8
52.5°	838.5	867.3	937.9	999.9	1020.0
55°	776.5	811.1	888.9	953.7	972.5
57.5°	711.7	749.2	837.1	903.3	923.5
60°	649.8	690.1	785.2	852.9	873.1
62.5°	576.3	626.7	729.0	793.8	811.1
65°	507.1	564.8	669.9	729.0	742.0
67.5°	436.5	504.2	609.4	661.3	665.6
70°	365.9	442.3	544.6	576.3	556.1
72.5°	296.8	381.8	475.4	449.5	426.4
75°	232.0	319.8	381.8	337.1	327.0
77.5°	171.4	262.2	266.5	244.9	237.7
80°	118.1	203.1	180.1	155.6	144.1
82.5°	76.4	125.3	99.4	73.5	66.3
85°	41.8	54.7	31.7	15.8	10.1
87.5°	15.8	10.1	4.3	4.3	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)