

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: P345102

Luminaire Tested: **24CZ-60SE-L830-HRP-UNV-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P345102
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1905-313-5)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-60SE-L830-HRP-UNV-CD1-U
Description: CRUZE 2X4 WITH HRP LENS INSERT
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5014.1 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

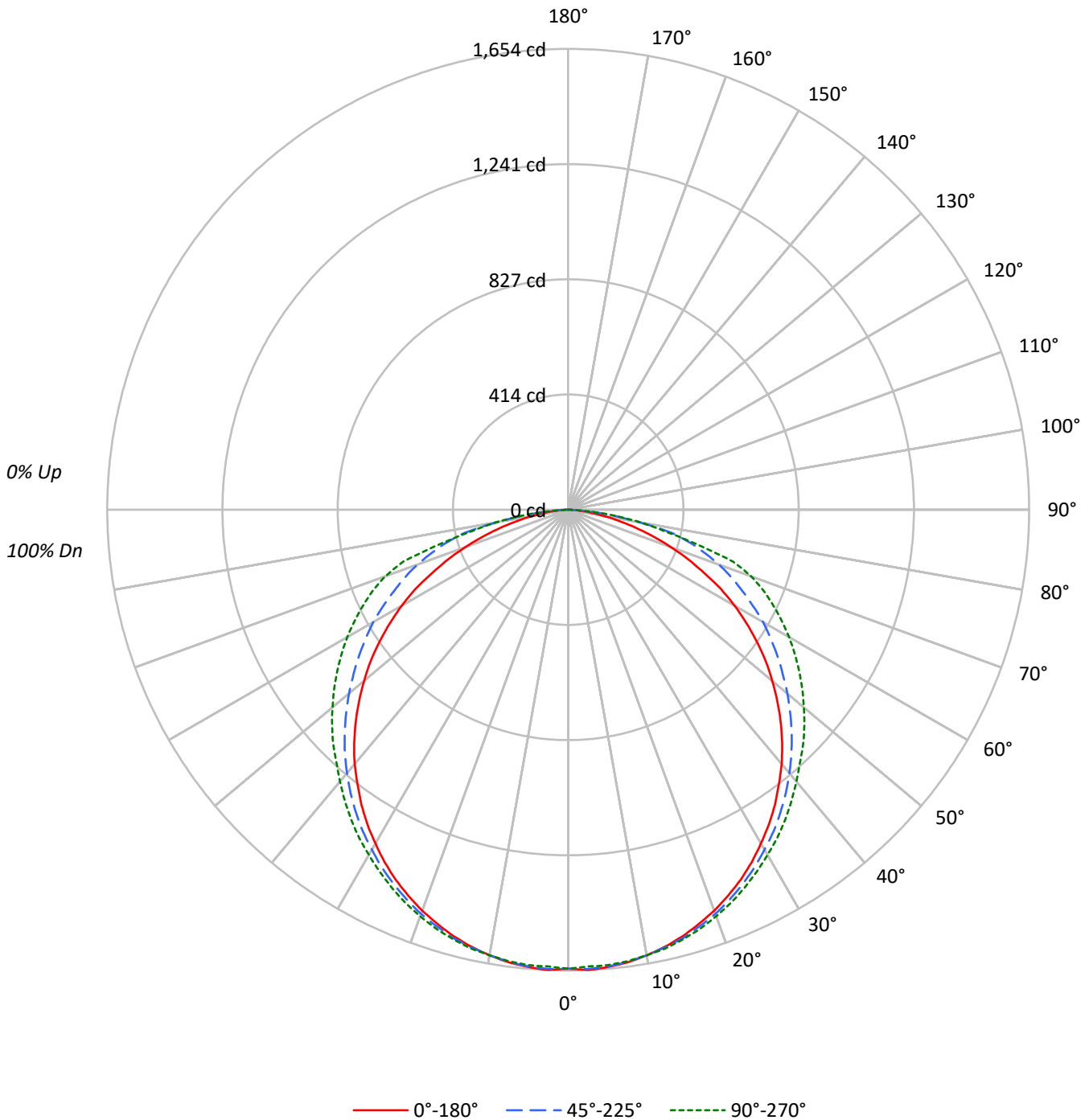
Input Watts (W): 60
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	74	81	76	72	77	74	70	68
3	89	78	70	63	86	76	69	62	73	67	61	71	65	60	68	63	59	57
4	81	69	60	53	79	68	59	52	65	58	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	45	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	41	34	48	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	31	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2217	2217	2217
5°	2225	2222	2216
10°	2219	2219	2219
15°	2208	2217	2223
20°	2193	2211	2224
25°	2175	2200	2223
30°	2149	2189	2222
35°	2124	2180	2230
40°	2094	2169	2237
45°	2052	2158	2268
50°	2001	2149	2311
55°	1940	2151	2373
60°	1855	2173	2462
65°	1716	2195	2585
70°	1546	2264	2746
75°	1306	2334	2456
80°	1015	1997	2063
85°	730	1360	1193



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.2	3.1
10°-20°	448.4	8.9
20°-30°	681.9	13.6
30°-40°	828.5	16.5
40°-50°	874.4	17.4
50°-60°	821.6	16.4
60°-70°	676.4	13.5
70°-80°	426.1	8.5
80°-90°	100.6	2.0
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°	1286.4	25.7
0°-40°	2114.9	42.2
0°-60°	3810.9	76.0
0°-90°	5014.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5014.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1647	1647	1647	1647	1647	
5°	1647	1639	1645	1643	1641	157
15°	1585	1579	1592	1596	1596	447
25°	1465	1463	1482	1491	1497	675
35°	1293	1300	1327	1345	1357	808
45°	1078	1095	1134	1166	1192	831
55°	827	857	917	982	1012	738
65°	539	591	690	778	812	535
75°	251	329	449	490	472	268
85°	47	80	88	82	77	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1647.4	1647.4	1647.4	1647.4	1647.4
2.5°	1653.8	1643.1	1649.6	1647.4	1641.0
5°	1647.4	1638.8	1645.3	1643.1	1641.0
7.5°	1638.8	1630.2	1636.7	1634.5	1634.5
10°	1623.8	1617.3	1623.8	1623.8	1623.8
12.5°	1606.6	1600.2	1608.7	1610.9	1613.0
15°	1585.1	1578.7	1591.6	1595.9	1595.9
17.5°	1559.3	1555.0	1567.9	1572.2	1576.5
20°	1531.4	1529.3	1544.3	1548.6	1552.9
22.5°	1499.2	1499.2	1514.2	1518.5	1527.1
25°	1464.8	1462.7	1482.0	1490.6	1497.1
27.5°	1426.2	1426.2	1447.7	1458.4	1464.8
30°	1383.2	1387.5	1409.0	1421.9	1430.5
32.5°	1340.3	1344.6	1370.3	1385.4	1396.1
35°	1293.0	1299.5	1327.4	1344.6	1357.4
37.5°	1241.5	1252.2	1282.3	1301.6	1316.6
40°	1192.1	1200.6	1235.0	1256.5	1273.7
42.5°	1136.2	1151.2	1185.6	1211.4	1230.7
45°	1078.2	1095.4	1134.1	1166.3	1192.1
47.5°	1018.1	1039.6	1080.4	1123.3	1149.1
50°	955.8	979.4	1026.7	1078.2	1104.0
52.5°	893.5	919.3	970.8	1031.0	1058.9
55°	826.9	857.0	917.1	981.6	1011.6
57.5°	758.2	792.6	861.3	934.3	964.4
60°	689.5	726.0	807.6	880.6	915.0
62.5°	618.6	659.4	747.5	831.2	863.4
65°	539.1	590.7	689.5	777.5	811.9
67.5°	466.1	519.8	633.6	721.7	758.2
70°	393.1	455.3	575.6	663.7	698.1
72.5°	320.0	393.1	511.2	601.4	620.7
75°	251.3	328.6	448.9	489.7	472.5
77.5°	184.7	270.6	378.0	356.5	352.2
80°	131.0	214.8	257.7	259.9	266.3
82.5°	83.8	158.9	167.5	169.7	171.8
85°	47.3	79.5	88.1	81.6	77.3
87.5°	21.5	25.8	21.5	15.0	12.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)