

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: P345103

Luminaire Tested: **24CZ-60SE-L835-HRP-UNV-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P345103
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-L835-HRP-UNV-CD1-U
Description: CRUZE 2X4 WITH HRP LENS INSERT
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5059.9 lumens
Efficiency: N/A
Efficacy: 84.3 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

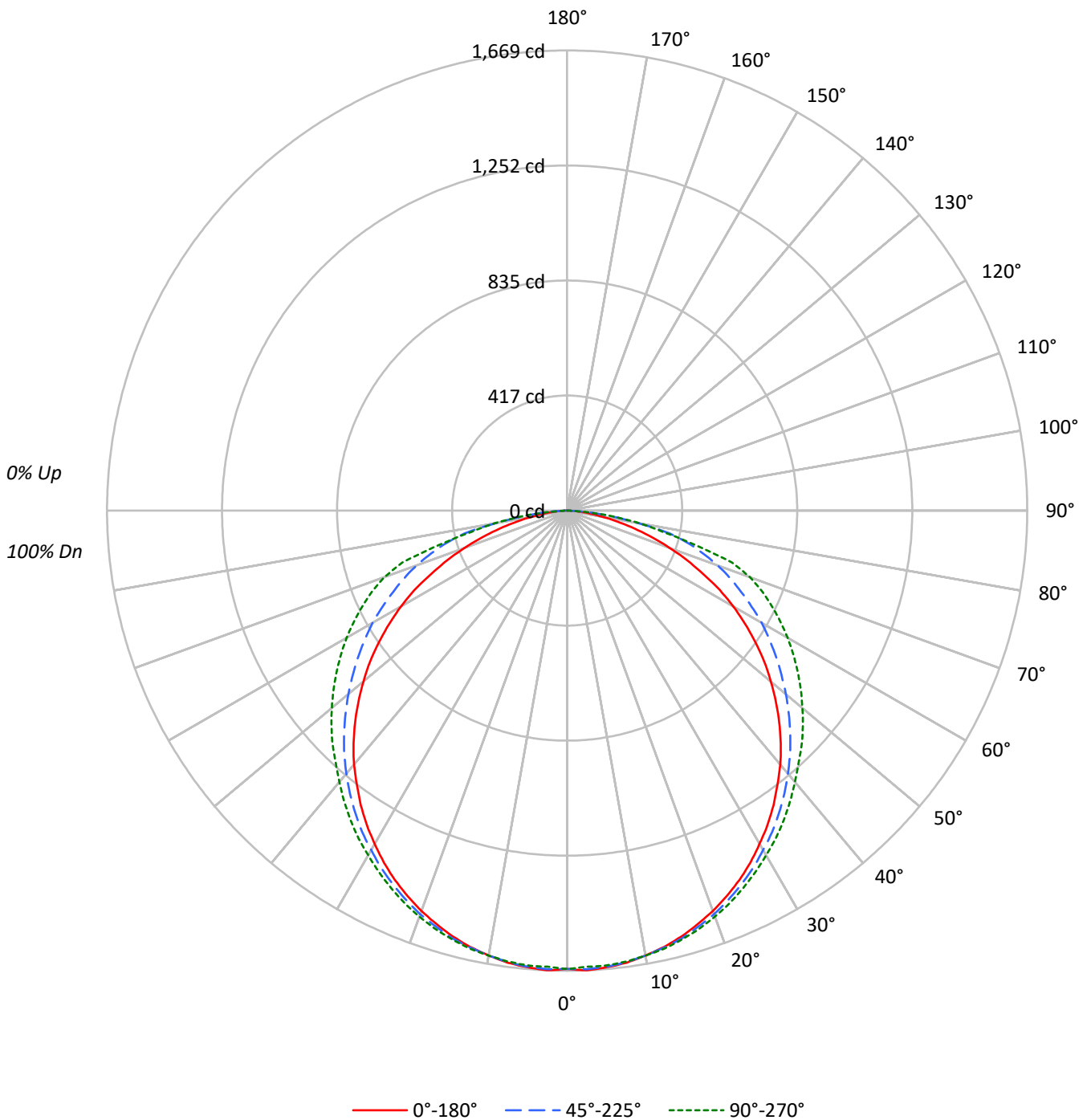
Input Watts (W): 60
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2237	2237	2237
5°	2245	2242	2237
10°	2239	2239	2239
15°	2228	2237	2243
20°	2213	2231	2244
25°	2195	2220	2243
30°	2169	2209	2243
35°	2143	2200	2250
40°	2113	2189	2258
45°	2070	2178	2289
50°	2019	2169	2332
55°	1958	2171	2395
60°	1872	2193	2485
65°	1732	2215	2608
70°	1561	2285	2771
75°	1318	2355	2479
80°	1024	2015	2083
85°	736	1372	1204



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.6	3.1
10°-20°	452.5	8.9
20°-30°	688.1	13.6
30°-40°	836.0	16.5
40°-50°	882.4	17.4
50°-60°	829.1	16.4
60°-70°	682.6	13.5
70°-80°	430.0	8.5
80°-90°	101.5	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°	1298.2	25.7
0°-40°	2134.2	42.2
0°-60°	3845.7	76.0
0°-90°	5059.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5059.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1662	1662	1662	1662	1662	
5°	1662	1654	1660	1658	1656	158
15°	1600	1593	1606	1610	1610	451
25°	1478	1476	1496	1504	1511	681
35°	1305	1311	1340	1357	1370	816
45°	1088	1105	1144	1177	1203	839
55°	834	865	926	990	1021	745
65°	544	596	696	785	819	540
75°	254	332	453	494	477	271
85°	48	80	89	82	78	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1662.5	1662.5	1662.5	1662.5	1662.5
2.5°	1669.0	1658.1	1664.6	1662.5	1656.0
5°	1662.5	1653.8	1660.3	1658.1	1656.0
7.5°	1653.8	1645.1	1651.6	1649.5	1649.5
10°	1638.6	1632.1	1638.6	1638.6	1638.6
12.5°	1621.3	1614.8	1623.4	1625.6	1627.8
15°	1599.6	1593.1	1606.1	1610.4	1610.4
17.5°	1573.6	1569.3	1582.3	1586.6	1590.9
20°	1545.4	1543.3	1558.4	1562.8	1567.1
22.5°	1512.9	1512.9	1528.1	1532.4	1541.1
25°	1478.2	1476.1	1495.6	1504.2	1510.7
27.5°	1439.2	1439.2	1460.9	1471.7	1478.2
30°	1395.9	1400.2	1421.9	1434.9	1443.5
32.5°	1352.5	1356.8	1382.9	1398.0	1408.9
35°	1304.8	1311.3	1339.5	1356.8	1369.9
37.5°	1252.8	1263.6	1294.0	1313.5	1328.7
40°	1203.0	1211.6	1246.3	1268.0	1285.3
42.5°	1146.6	1161.8	1196.5	1222.5	1242.0
45°	1088.1	1105.4	1144.4	1176.9	1203.0
47.5°	1027.4	1049.1	1090.2	1133.6	1159.6
50°	964.5	988.4	1036.1	1088.1	1114.1
52.5°	901.7	927.7	979.7	1040.4	1068.6
55°	834.5	864.8	925.5	990.5	1020.9
57.5°	765.1	799.8	869.2	942.9	973.2
60°	695.8	732.6	815.0	888.7	923.3
62.5°	624.2	665.4	754.3	838.8	871.3
65°	544.0	596.1	695.8	784.6	819.3
67.5°	470.3	524.5	639.4	728.3	765.1
70°	396.7	459.5	580.9	669.8	704.4
72.5°	323.0	396.7	515.9	606.9	626.4
75°	253.6	331.6	453.0	494.2	476.8
77.5°	186.4	273.1	381.5	359.8	355.5
80°	132.2	216.7	260.1	262.3	268.8
82.5°	84.5	160.4	169.1	171.2	173.4
85°	47.7	80.2	88.9	82.4	78.0
87.5°	21.7	26.0	21.7	15.2	13.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)