

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: P232460

Luminaire Tested: **4SRS-56-W-UNV-L830-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P232460
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1706-124-1)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4SRS-56-W-UNV-L830-CD1-U
Description: WAVESTREAM LED RECESSED 4 FT FIXTURE
Light Source: -
Ballast/Driver: -

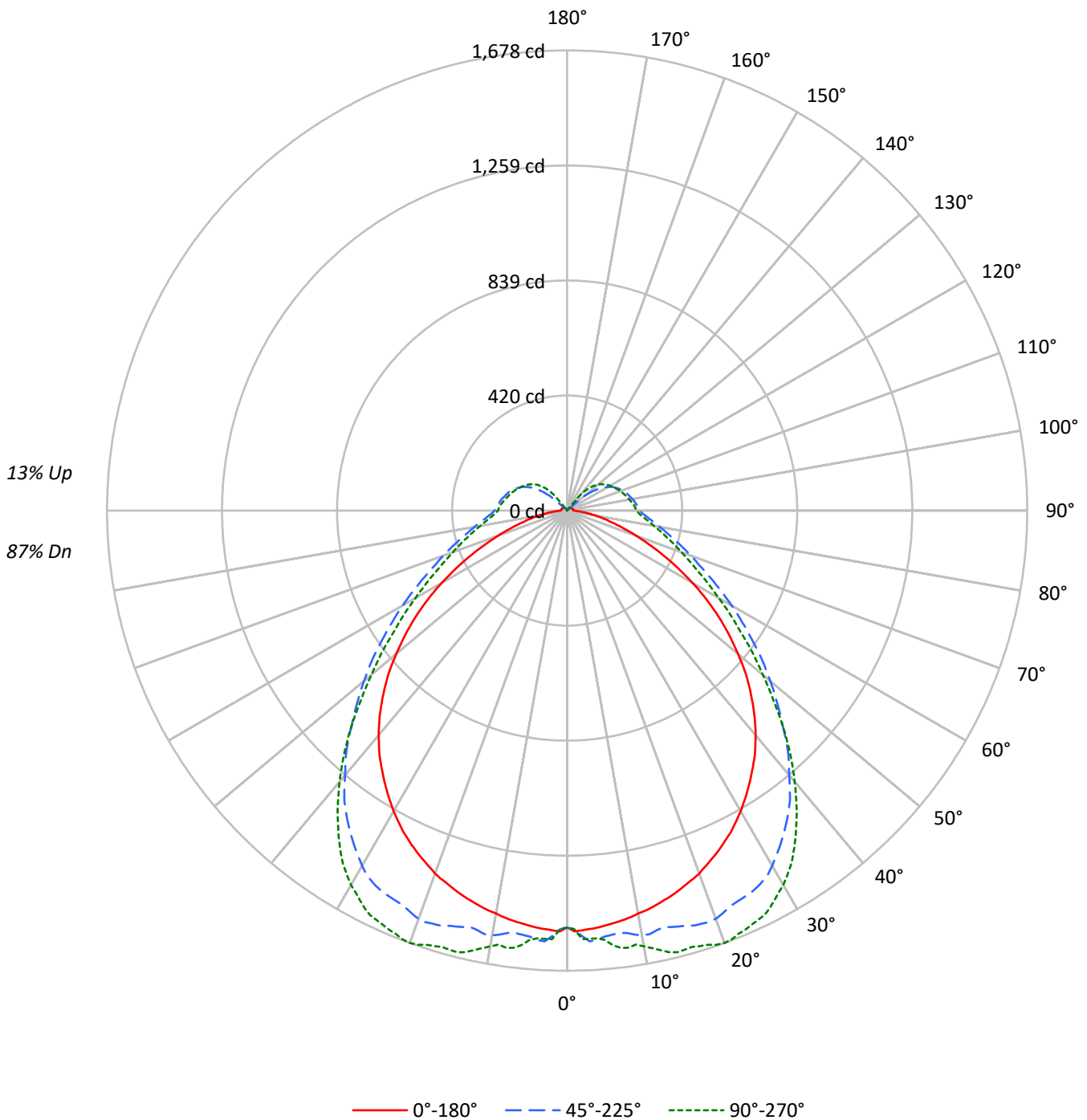
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5518.2 lumens
Efficiency: N/A
Efficacy: 146.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.44 / 1.44
Luminous Opening: Rectangular w/ Sides (W: 0.02' x L: 3.88' x H: 0.3')
CIE Type: Semi-Direct

Input Watts (W): 37.8
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	116	116	116	116	112	112	112	112	104	104	104	97	97	97	91	91	91	87
1	105	100	95	91	101	96	92	88	89	86	83	83	81	78	78	76	74	71
2	95	87	79	73	91	84	77	72	78	73	68	73	68	65	68	65	61	59
3	87	76	68	61	83	73	66	60	69	62	57	64	59	55	60	56	52	49
4	79	67	58	52	76	65	57	51	61	54	49	57	51	47	54	49	45	42
5	73	60	51	45	70	58	50	44	55	48	42	51	45	41	48	43	39	37
6	67	54	45	39	65	53	44	38	49	42	37	47	40	36	44	39	34	32
7	62	49	40	34	60	48	39	34	45	38	33	42	36	32	40	35	30	28
8	58	45	36	30	56	43	36	30	41	34	29	39	33	28	37	31	27	25
9	54	41	33	27	52	40	32	27	38	31	26	36	30	25	34	29	25	23
10	51	38	30	25	49	37	29	24	35	28	24	33	27	23	32	26	22	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	270307	270307	270307
5°	269697	127510	105191
10°	265805	83882	66832
15°	262666	62500	49995
20°	259272	50621	40012
25°	254480	41580	32691
30°	248875	34862	26980
35°	241570	28880	21993
40°	233188	23679	17647
45°	221590	19264	13955
50°	206265	15620	10871
55°	188457	12571	8491
60°	165844	10091	6687
65°	140254	8053	5318
70°	114546	6532	4323
75°	91353	5384	3583
80°	75079	4516	3026
85°	57716	3877	2607



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.7	2.7
10°-20°	442.7	8.0
20°-30°	699.8	12.7
30°-40°	844.4	15.3
40°-50°	827.7	15.0
50°-60°	695.4	12.6
60°-70°	521.8	9.5
70°-80°	374.8	6.8
80°-90°	270.8	4.9
90°-100°	223.8	4.1
100°-110°	190.5	3.5
110°-120°	140.7	2.6
120°-130°	93.0	1.7
130°-140°	38.7	0.7
140°-150°	4.1	0.1
150°-160°	1.1	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	1291.2	23.4
0°-40°	2135.6	38.7
0°-60°	3658.7	66.3
0°-90°	4826.2	87.5
90°-120°	555.0	10.1
90°-150°	690.9	12.5
90°-180°	692.0	12.5
0°-180°	5518.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1520	1520	1520	1520	1520	
5°	1521	1548	1560	1563	1572	144
15°	1456	1483	1570	1648	1658	411
25°	1343	1404	1548	1621	1647	619
35°	1172	1262	1393	1449	1453	733
45°	949	1024	1113	1126	1113	730
55°	674	760	824	794	773	601
65°	388	519	574	541	529	387
75°	171	348	403	381	376	187
85°	53	240	296	280	280	54
90°	23	204	264	252	252	14
95°	22	194	254	242	244	18
105°	21	155	229	218	219	22
115°	19	67	196	197	194	19
125°	16	21	138	168	167	15
135°	14	14	9	106	120	11
145°	9	8	5	0	0	6
155°	5	4	2	0	0	3
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1520.3	1520.3	1520.3	1520.3	1520.3
1°	1534.9	1518.6	1527.2	1530.6	1527.2
2°	1531.5	1522.9	1552.0	1569.1	1563.9
3°	1528.0	1533.2	1573.3	1571.6	1563.9
4°	1525.5	1542.6	1569.1	1566.5	1563.9
5°	1521.2	1547.7	1559.7	1563.1	1571.6
6°	1516.1	1545.1	1555.4	1575.0	1593.0
7°	1510.9	1537.4	1552.0	1592.1	1606.7
8°	1505.8	1529.7	1555.4	1602.4	1609.2
9°	1499.8	1522.9	1565.6	1599.8	1602.4
10°	1492.1	1516.9	1572.5	1593.8	1613.5
11°	1487.0	1508.4	1574.2	1602.4	1625.5
12°	1480.2	1498.1	1564.8	1614.3	1639.1
13°	1472.5	1490.4	1559.7	1628.9	1652.8
14°	1463.9	1484.4	1564.8	1640.0	1659.6
15°	1456.2	1482.7	1569.9	1647.7	1657.9
16°	1447.7	1481.9	1575.0	1646.0	1655.4
17°	1437.4	1480.2	1582.7	1639.1	1660.5
18°	1427.2	1477.6	1584.4	1639.1	1664.8
19°	1418.6	1473.3	1587.0	1642.5	1674.2
20°	1408.4	1463.9	1584.4	1646.0	1677.6
21°	1394.7	1452.0	1575.9	1649.4	1675.0
22°	1381.9	1438.3	1564.8	1646.8	1665.6
23°	1369.9	1423.8	1557.1	1640.0	1661.4
24°	1357.1	1413.5	1552.8	1628.9	1653.7
25°	1343.4	1404.1	1548.5	1621.2	1646.8
26°	1328.9	1394.7	1543.4	1613.5	1640.8
27°	1315.2	1385.3	1536.6	1604.1	1627.2
28°	1299.0	1373.3	1526.3	1594.7	1609.2
29°	1281.9	1360.5	1513.5	1581.0	1592.1
30°	1265.7	1347.7	1495.6	1560.5	1576.7
32.5°	1220.4	1309.3	1446.8	1510.9	1523.8
35°	1172.5	1262.3	1393.0	1449.4	1452.8
37.5°	1123.8	1210.1	1334.9	1375.1	1375.1
40°	1069.1	1147.7	1259.7	1295.6	1291.3
42.5°	1011.0	1087.9	1192.2	1213.5	1204.1
45°	948.6	1023.8	1112.7	1125.5	1112.7
47.5°	884.5	958.0	1039.2	1040.1	1018.7
50°	813.6	892.2	966.6	952.9	931.5
52.5°	744.4	826.4	897.3	870.0	852.9
55°	674.3	759.7	823.8	793.9	772.6
57.5°	601.6	693.9	756.3	723.8	705.0
60°	528.1	632.4	693.1	656.3	639.2
62.5°	455.5	571.7	630.7	595.7	581.1
65°	388.0	518.7	574.3	541.0	529.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
67.5°	324.7	467.5	523.0	493.1	482.9
70°	266.6	423.0	479.4	451.2	443.5
72.5°	217.1	382.9	440.1	414.5	408.5
75°	170.9	347.8	403.4	381.2	376.0
77.5°	136.7	317.1	370.9	351.2	347.8
80°	105.1	288.9	342.7	324.7	322.2
82.5°	76.9	263.2	317.1	300.0	299.1
85°	53.0	240.1	295.7	279.5	279.5
87.5°	34.2	221.3	276.9	261.5	263.2
90°	23.1	204.3	264.1	252.1	252.1
92.5°	23.1	200.8	259.8	247.8	248.7
95°	22.2	194.0	253.8	241.9	243.6
97.5°	22.2	186.3	247.8	235.0	236.7
100°	21.4	176.9	241.9	229.0	230.7
102.5°	21.4	166.6	235.0	223.9	223.9
105°	21.4	154.7	229.0	217.9	218.8
107.5°	20.5	141.0	223.1	212.8	212.8
110°	19.7	122.2	216.2	207.7	206.8
112.5°	19.7	98.3	206.8	202.5	200.8
115°	18.8	66.7	195.7	196.6	194.0
117.5°	17.9	29.1	186.3	190.6	188.0
120°	17.1	26.5	172.6	184.6	181.2
122.5°	17.1	23.9	156.4	176.9	174.3
125°	16.2	21.4	137.6	167.5	166.6
127.5°	16.2	19.7	113.7	156.4	158.1
130°	15.4	17.9	83.8	143.6	147.8
132.5°	14.5	16.2	17.1	127.3	135.0
135°	13.7	14.5	9.4	106.0	119.6
137.5°	12.8	12.8	8.5	79.5	99.1
140°	12.0	11.1	6.8	12.0	73.5
142.5°	10.3	10.3	6.0	0.9	2.6
145°	9.4	8.5	5.1	0.0	0.0
147.5°	8.5	7.7	4.3	0.0	0.0
150°	7.7	6.8	3.4	0.0	0.0
152.5°	6.8	5.1	2.6	0.0	0.0
155°	5.1	4.3	1.7	0.0	0.0
157.5°	4.3	3.4	0.9	0.0	0.0
160°	3.4	2.6	0.9	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)