

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: P232467

Luminaire Tested: **4SRS-65-W-UNV-L850-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P232467  
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-65-W-UNV-L850-CD1-U  
Description: WAVESTREAM LED RECESSED 4 FT FIXTURE  
Light Source: -  
Ballast/Driver: -

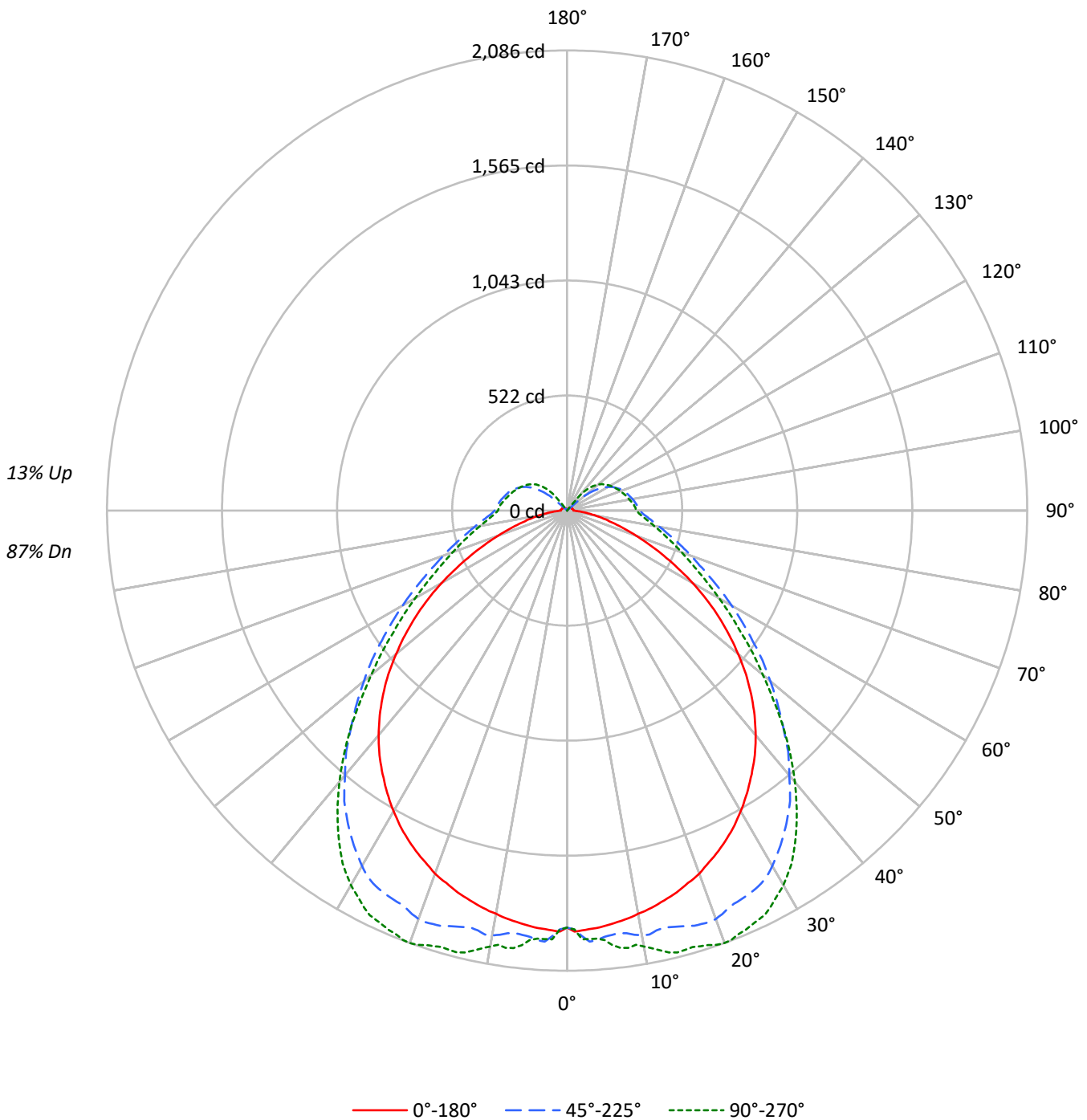
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6862.9 lumens  
Efficiency: N/A  
Efficacy: 153.5 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): 44.7  
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°	336181	336181	336181
5°	335420	158576	130826
10°	330595	104323	83118
15°	326682	77732	62178
20°	322452	62957	49762
25°	316500	51713	40657
30°	309516	43356	33557
35°	300432	35919	27353
40°	290007	29450	21948
45°	275598	23958	17355
50°	256512	19426	13520
55°	234377	15635	10560
60°	206260	12551	8316
65°	174413	10015	6614
70°	142474	8124	5376
75°	113643	6696	4457
80°	93367	5617	3763
85°	71764	4822	3242



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	184.9	2.7
10°-20°	550.6	8.0
20°-30°	870.3	12.7
30°-40°	1050.2	15.3
40°-50°	1029.4	15.0
50°-60°	864.9	12.6
60°-70°	649.0	9.5
70°-80°	466.2	6.8
80°-90°	336.8	4.9
90°-100°	278.3	4.1
100°-110°	237.0	3.5
110°-120°	175.0	2.5
120°-130°	115.7	1.7
130°-140°	48.2	0.7
140°-150°	5.1	0.1
150°-160°	1.3	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	1605.8	23.4
0°-40°	2656.0	38.7
0°-60°	4550.3	66.3
0°-90°	6002.3	87.5
90°-120°	690.3	10.1
90°-150°	859.3	12.5
90°-180°	861.0	12.5
0°-180°	6862.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1891	1891	1891	1891	1891	
5°	1892	1925	1940	1944	1955	179
15°	1811	1844	1952	2049	2062	511
25°	1671	1746	1926	2016	2048	769
35°	1458	1570	1732	1803	1807	912
45°	1180	1273	1384	1400	1384	908
55°	839	945	1025	987	961	748
65°	482	645	714	673	658	481
75°	213	433	502	474	468	233
85°	66	299	368	348	348	68
90°	29	254	328	314	314	18
95°	28	241	316	301	303	23
105°	27	192	285	271	272	28
115°	23	83	243	244	241	23
125°	20	27	171	208	207	18
135°	17	18	12	132	149	13
145°	12	11	6	0	0	7
155°	6	5	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°	1890.8	1890.8	1890.8	1890.8	1890.8
1°	1908.9	1888.7	1899.3	1903.6	1899.3
2°	1904.6	1894.0	1930.2	1951.4	1945.0
3°	1900.4	1906.8	1956.7	1954.6	1945.0
4°	1897.2	1918.5	1951.4	1948.2	1945.0
5°	1891.9	1924.8	1939.7	1944.0	1954.6
6°	1885.5	1921.6	1934.4	1958.8	1981.2
7°	1879.1	1912.1	1930.2	1980.1	1998.2
8°	1872.8	1902.5	1934.4	1992.9	2001.4
9°	1865.3	1894.0	1947.2	1989.7	1992.9
10°	1855.8	1886.6	1955.7	1982.2	2006.7
11°	1849.4	1875.9	1957.8	1992.9	2021.6
12°	1840.9	1863.2	1946.1	2007.7	2038.6
13°	1831.3	1853.6	1939.7	2025.8	2055.6
14°	1820.7	1846.2	1946.1	2039.6	2064.1
15°	1811.1	1844.1	1952.5	2049.2	2061.9
16°	1800.5	1843.0	1958.8	2047.1	2058.8
17°	1787.7	1840.9	1968.4	2038.6	2065.1
18°	1775.0	1837.7	1970.5	2038.6	2070.4
19°	1764.3	1832.4	1973.7	2042.8	2082.1
20°	1751.6	1820.7	1970.5	2047.1	2086.4
21°	1734.6	1805.8	1959.9	2051.3	2083.2
22°	1718.6	1788.8	1946.1	2048.1	2071.5
23°	1703.8	1770.7	1936.5	2039.6	2066.2
24°	1687.8	1758.0	1931.2	2025.8	2056.6
25°	1670.8	1746.3	1925.9	2016.2	2048.1
26°	1652.7	1734.6	1919.5	2006.7	2040.7
27°	1635.7	1722.9	1911.0	1995.0	2023.7
28°	1615.5	1708.0	1898.3	1983.3	2001.4
29°	1594.3	1692.1	1882.3	1966.3	1980.1
30°	1574.1	1676.1	1860.0	1940.8	1961.0
32.5°	1517.8	1628.3	1799.4	1879.1	1895.1
35°	1458.2	1569.8	1732.5	1802.6	1806.9
37.5°	1397.7	1505.0	1660.2	1710.1	1710.1
40°	1329.6	1427.4	1566.7	1611.3	1606.0
42.5°	1257.4	1353.0	1482.7	1509.3	1497.6
45°	1179.8	1273.3	1383.8	1399.8	1383.8
47.5°	1100.1	1191.5	1292.4	1293.5	1266.9
50°	1011.8	1109.6	1202.1	1185.1	1158.5
52.5°	925.7	1027.8	1116.0	1082.0	1060.7
55°	838.6	944.9	1024.6	987.4	960.8
57.5°	748.3	863.0	940.6	900.2	876.9
60°	656.8	786.5	862.0	816.3	795.0
62.5°	566.5	711.1	784.4	740.8	722.7
65°	482.5	645.2	714.2	672.8	657.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
67.5°	403.9	581.4	650.5	613.3	600.5
70°	331.6	526.1	596.3	561.2	551.6
72.5°	270.0	476.2	547.4	515.5	508.0
75°	212.6	432.6	501.7	474.0	467.7
77.5°	170.1	394.3	461.3	436.8	432.6
80°	130.7	359.2	426.2	403.9	400.7
82.5°	95.7	327.4	394.3	373.1	372.0
85°	65.9	298.7	367.7	347.6	347.6
87.5°	42.5	275.3	344.4	325.2	327.4
90°	28.7	254.0	328.4	313.5	313.5
92.5°	28.7	249.8	323.1	308.2	309.3
95°	27.6	241.3	315.7	300.8	302.9
97.5°	27.6	231.7	308.2	292.3	294.4
100°	26.6	220.0	300.8	284.8	287.0
102.5°	26.6	207.3	292.3	278.5	278.5
105°	26.6	192.4	284.8	271.0	272.1
107.5°	25.5	175.4	277.4	264.7	264.7
110°	24.4	152.0	268.9	258.3	257.2
112.5°	24.4	122.2	257.2	251.9	249.8
115°	23.4	82.9	243.4	244.5	241.3
117.5°	22.3	36.1	231.7	237.0	233.8
120°	21.3	32.9	214.7	229.6	225.3
122.5°	21.3	29.8	194.5	220.0	216.8
125°	20.2	26.6	171.1	208.3	207.3
127.5°	20.2	24.4	141.4	194.5	196.6
130°	19.1	22.3	104.2	178.6	183.9
132.5°	18.1	20.2	21.3	158.4	167.9
135°	17.0	18.1	11.7	131.8	148.8
137.5°	15.9	15.9	10.6	98.8	123.3
140°	14.9	13.8	8.5	14.9	91.4
142.5°	12.8	12.8	7.4	1.1	3.2
145°	11.7	10.6	6.4	0.0	0.0
147.5°	10.6	9.6	5.3	0.0	0.0
150°	9.6	8.5	4.3	0.0	0.0
152.5°	8.5	6.4	3.2	0.0	0.0
155°	6.4	5.3	2.1	0.0	0.0
157.5°	5.3	4.3	1.1	0.0	0.0
160°	4.3	3.2	1.1	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)