

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: P192423

Luminaire Tested: **4WSL-LD2-60-UNV-L840-CD1-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: P192423
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P28104)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4WSL-LD2-60-UNV-L840-CD1-U
Description: 4FT Linear Wavestream System, L840
Light Source: (238) 4000K CCT, 80 CRI LEDS
EL236N0119D840
Ballast/Driver: OSRAM
OT50W

Summary

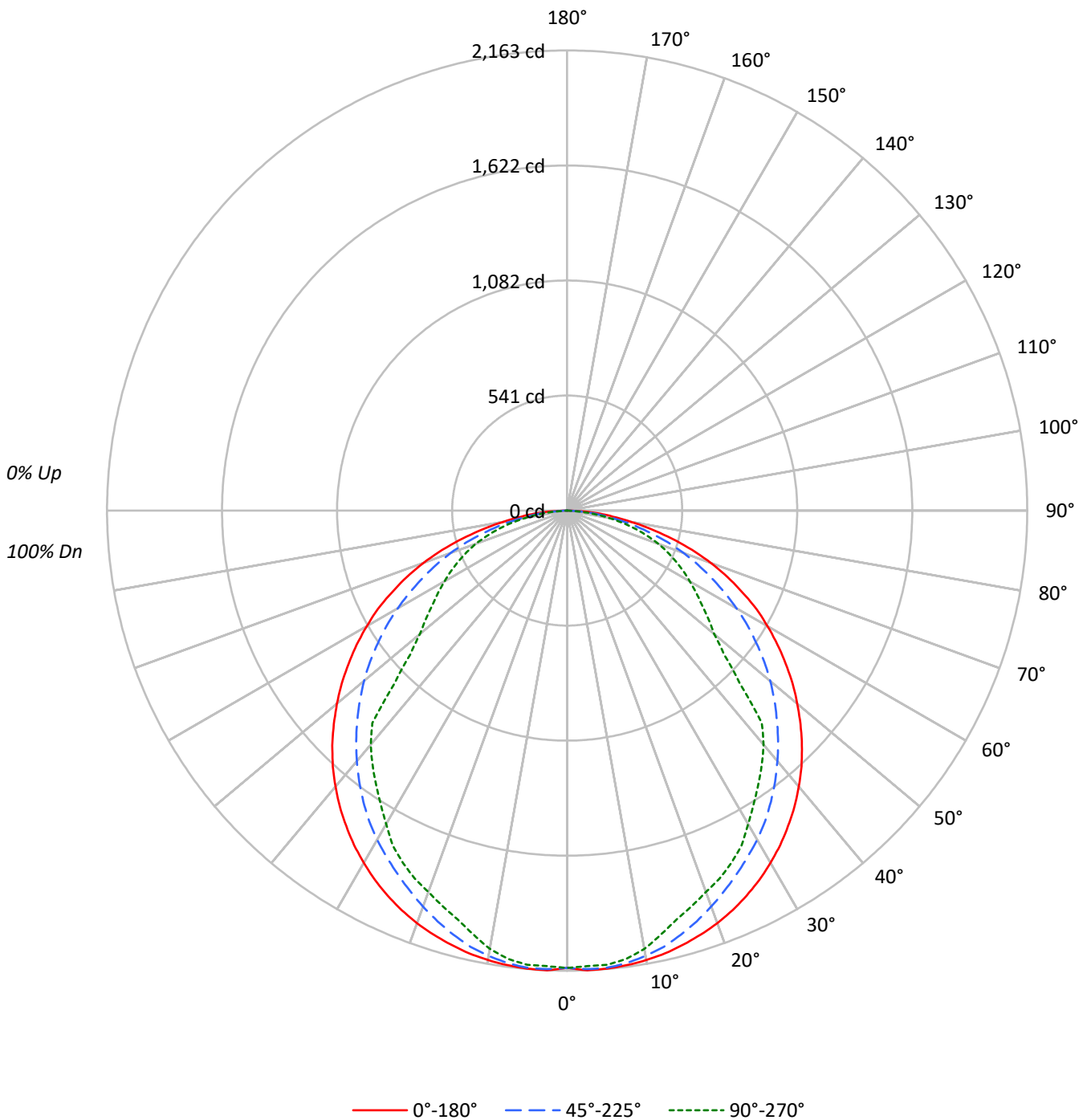
Lumens per Lamp: N/A
Luminaire Lumens: 5988.0 lumens
Efficiency: N/A
Efficacy: 106.5 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.18 / 1.35
Luminous Opening: Rectangular (W 0.5' x L: 3.8' x H: 0')
CIE Type: Direct

Input Watts (W): 56.2
Input Voltage (V): NR
Input Current (A_{in}): 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	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	38
7	65	51	43	36	63	51	42	36	49	42	36	48	41	36	46	40	35	33
8	60	47	38	33	59	46	38	32	45	37	32	44	37	32	42	36	32	30
9	57	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	27
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12177	12177	12177
5°	12291	12268	12189
10°	12342	12228	12034
15°	12386	12107	11665
20°	12445	11943	11501
25°	12482	11789	11417
30°	12506	11689	11132
35°	12522	11550	10837
40°	12526	11369	10621
45°	12506	11173	9190
50°	12449	10983	7961
55°	12386	10722	7631
60°	12323	10415	7542
65°	12162	10038	7542
70°	11911	9647	7547
75°	11144	8889	7328
80°	9954	7690	6528
85°	9146	5922	4765



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	204.2	3.4
10°-20°	579.5	9.7
20°-30°	873.5	14.6
30°-40°	1048.8	17.5
40°-50°	1068.2	17.8
50°-60°	937.4	15.7
60°-70°	729.2	12.2
70°-80°	433.7	7.2
80°-90°	113.5	1.9
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°	1657.2	27.7
0°-40°	2706.0	45.2
0°-60°	4711.6	78.7
0°-90°	5988.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5988.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2149	2149	2149	2149	2149	
5°	2161	2142	2157	2149	2143	206
15°	2112	2082	2064	2013	1989	597
25°	1997	1951	1886	1836	1826	921
35°	1811	1753	1670	1591	1567	1133
45°	1561	1510	1395	1288	1147	1204
55°	1254	1216	1086	870	773	1121
65°	907	872	749	590	563	899
75°	509	483	406	329	335	538
85°	141	125	91	73	73	154
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2149.4	2149.4	2149.4	2149.4	2149.4
2.5°	2163.3	2141.5	2157.3	2153.4	2143.4
5°	2161.3	2141.5	2157.3	2149.4	2143.4
7.5°	2155.3	2135.5	2145.4	2133.5	2125.6
10°	2145.4	2123.6	2125.6	2105.8	2091.9
12.5°	2131.6	2105.8	2099.9	2060.2	2040.4
15°	2111.8	2082.0	2064.2	2012.7	1988.9
17.5°	2090.0	2056.3	2024.6	1967.1	1949.3
20°	2064.2	2024.6	1981.0	1921.6	1907.7
22.5°	2032.5	1990.9	1933.5	1880.0	1872.1
25°	1996.9	1951.3	1885.9	1836.4	1826.5
27.5°	1957.2	1903.7	1836.4	1786.9	1775.0
30°	1911.7	1856.2	1786.9	1729.4	1701.7
32.5°	1864.1	1806.7	1731.4	1658.1	1632.3
35°	1810.6	1753.2	1670.0	1590.7	1567.0
37.5°	1755.2	1695.7	1606.6	1523.4	1503.6
40°	1693.8	1636.3	1537.3	1456.0	1436.2
42.5°	1630.4	1574.9	1467.9	1386.7	1355.0
45°	1561.0	1509.5	1394.6	1287.7	1147.0
47.5°	1487.7	1440.2	1321.3	1162.9	1000.4
50°	1412.5	1368.9	1246.1	1051.9	903.3
52.5°	1335.2	1295.6	1168.8	954.8	836.0
55°	1254.0	1216.3	1085.6	869.7	772.6
57.5°	1172.8	1135.1	1006.4	792.4	719.1
60°	1087.6	1051.9	919.2	721.1	665.6
62.5°	1004.4	964.7	834.0	655.7	616.1
65°	907.3	871.6	748.8	590.3	562.6
67.5°	816.2	778.5	665.6	526.9	511.1
70°	719.1	681.5	582.4	461.6	455.6
72.5°	616.1	586.4	495.3	398.2	394.2
75°	509.1	483.4	406.1	328.8	334.8
77.5°	404.1	388.3	320.9	263.5	267.4
80°	305.1	293.2	235.7	196.1	200.1
82.5°	217.9	208.0	160.5	130.7	130.7
85°	140.7	124.8	91.1	73.3	73.3
87.5°	55.5	45.6	27.7	7.9	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)