

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: P234489

Luminaire Tested: **4WSNLED-LD4-24SL-F-UNV-L835-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P234489  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-169-11)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4WSNLED-LD4-24SL-F-UNV-L835-CD1-U  
Description: 4FT WSNLED WRAPAROUND  
Light Source: (224) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

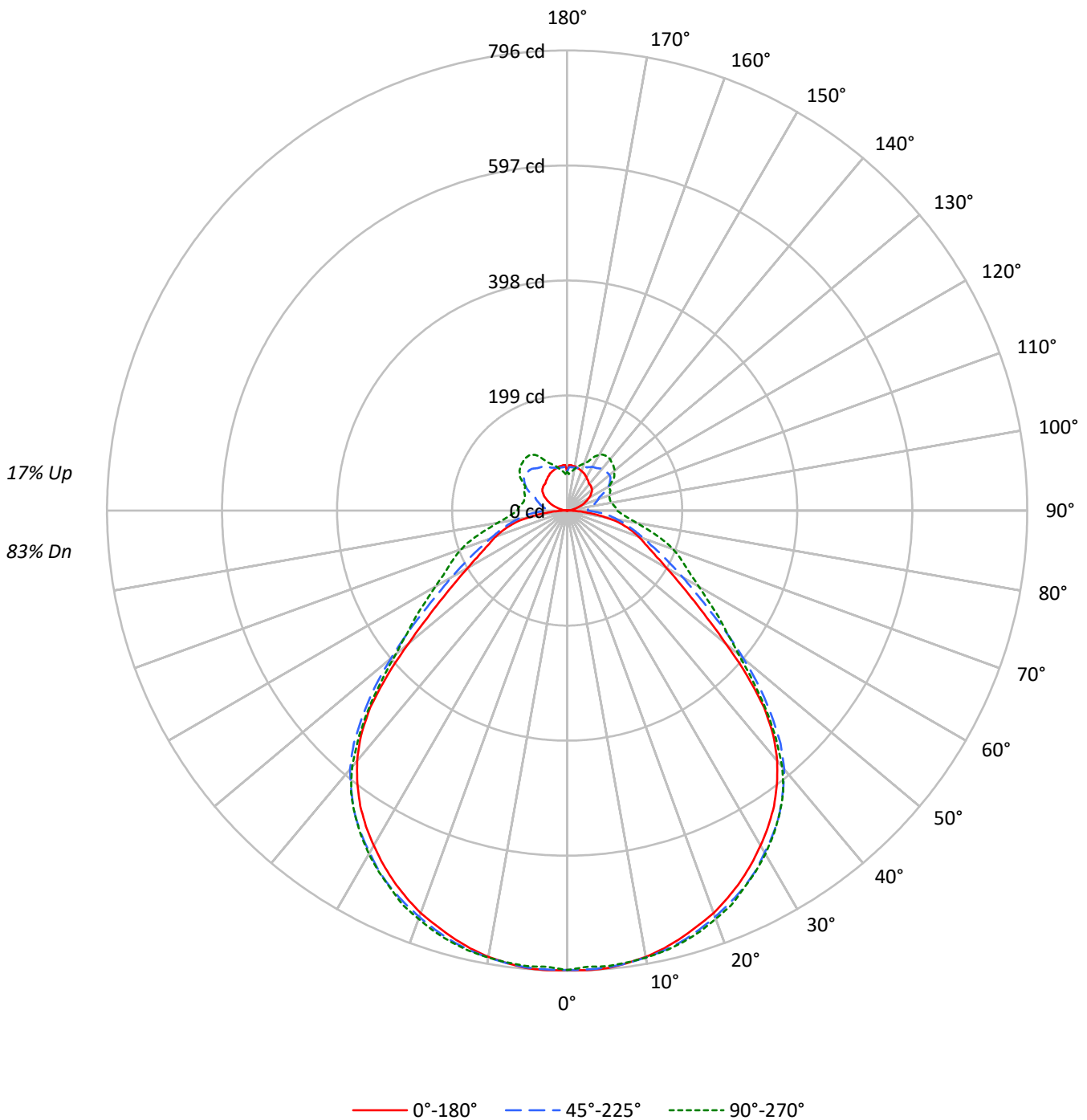
Lumens per Lamp: N/A  
Luminaire Lumens: 2468.0 lumens  
Efficiency: N/A  
Efficacy: 115.9 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.35  
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.12')  
CIE Type: Semi-Direct

Input Watts (W): 21.3  
Input Voltage (V): 120  
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

TEST NUMBER: P234489

CATALOG NUMBER: 4WSNLED-LD4-24SL-F-UNV-L835-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P234489

CATALOG NUMBER: 4WSNLED-LD4-24SL-F-UNV-L835-CD1-U

**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	115	115	115	115	110	110	110	110	101	101	101	93	93	93	86	86	86	83
1	105	100	96	92	100	96	93	89	89	86	83	82	80	78	76	74	72	69
2	96	88	82	76	92	85	79	74	78	74	70	73	69	65	67	64	62	59
3	88	78	70	64	84	75	68	62	70	64	59	65	60	56	60	56	53	50
4	81	69	61	55	77	67	59	53	62	56	51	58	53	48	54	50	46	43
5	74	62	54	47	71	60	52	46	56	49	44	52	47	42	49	44	40	38
6	69	56	48	42	66	54	46	41	51	44	39	48	42	37	44	40	36	33
7	64	51	43	37	61	49	42	36	46	40	35	43	38	33	41	36	32	30
8	59	47	38	33	57	45	38	32	42	36	31	40	34	30	38	32	29	27
9	56	43	35	30	53	41	34	29	39	33	28	37	31	27	35	30	26	24
10	52	39	32	27	50	38	31	26	36	30	25	34	29	25	32	27	24	22

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2139	2139	2139
5°	2141	2123	2114
10°	2130	2104	2099
15°	2113	2086	2084
20°	2098	2059	2059
25°	2074	2035	2025
30°	2043	1996	1988
35°	2005	1953	1935
40°	1935	1878	1839
45°	1777	1712	1645
50°	1447	1472	1411
55°	1175	1220	1270
60°	1013	1042	1163
65°	941	922	1128
70°	952	851	1141
75°	968	827	1110
80°	896	842	1105
85°	653	880	1261



TEST NUMBER: P234489

CATALOG NUMBER: 4WSNLED-LD4-24SL-F-UNV-L835-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.4	3.1
10°-20°	217.1	8.8
20°-30°	330.3	13.4
30°-40°	396.1	16.0
40°-50°	377.1	15.3
50°-60°	268.5	10.9
60°-70°	182.5	7.4
70°-80°	123.1	5.0
80°-90°	70.6	2.9
90°-100°	45.6	1.8
100°-110°	51.3	2.1
110°-120°	63.8	2.6
120°-130°	73.2	3.0
130°-140°	69.5	2.8
140°-150°	56.3	2.3
150°-160°	38.8	1.6
160°-170°	21.8	0.9
170°-180°	7.0	0.3
0°-30°	622.7	25.2
0°-40°	1018.8	41.3
0°-60°	1664.4	67.4
0°-90°	2040.7	82.7
90°-120°	160.7	6.5
90°-150°	359.7	14.6
90°-180°	427.0	17.3
0°-180°	2468.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	795	795	795	795	795	
5°	795	790	794	792	791	75
15°	765	764	771	774	773	216
25°	709	710	721	723	722	326
35°	624	627	640	640	640	389
45°	482	494	500	500	486	364
55°	262	288	301	304	319	239
65°	158	168	179	190	225	159
75°	104	87	112	134	156	108
85°	29	41	64	90	99	32
90°	0	18	36	68	86	2
95°	2	17	37	69	82	3
105°	17	25	50	69	76	18
115°	35	55	68	76	82	35
125°	50	67	91	98	99	45
135°	59	70	96	110	112	45
145°	63	70	90	110	116	39
155°	70	72	82	96	98	32
165°	75	75	76	78	80	21
175°	79	79	75	66	67	7
180°	67	67	67	67	67	



TEST NUMBER: P234489

CATALOG NUMBER: 4WSNLED-LD4-24SL-F-UNV-L835-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	794.7	794.7	794.7	794.7	794.7
2.5°	795.8	792.3	794.7	794.7	789.9
5°	794.7	789.9	793.5	792.3	791.1
7.5°	789.9	786.3	789.9	791.1	788.7
10°	783.9	780.3	785.1	786.3	785.1
12.5°	775.5	773.1	779.1	781.5	780.3
15°	764.8	763.6	770.8	774.3	773.1
17.5°	752.8	751.6	760.0	764.8	763.6
20°	740.9	739.7	748.0	751.6	751.6
22.5°	725.3	725.3	734.9	738.5	739.7
25°	708.6	709.8	720.6	723.0	721.8
27.5°	689.5	690.7	703.8	705.0	705.0
30°	669.2	671.6	683.5	684.7	685.9
32.5°	647.7	650.1	663.2	663.2	664.4
35°	623.8	627.4	640.5	640.5	640.5
37.5°	596.3	601.1	613.0	613.0	614.2
40°	565.2	572.4	584.3	583.1	578.4
42.5°	528.2	537.7	546.1	544.9	534.2
45°	481.6	493.5	499.5	499.5	486.4
47.5°	421.8	439.7	450.5	445.7	435.0
50°	358.5	384.8	397.9	395.5	387.2
52.5°	304.7	334.6	347.7	346.5	348.9
55°	261.7	288.0	301.1	303.5	319.1
57.5°	227.0	250.9	261.7	268.9	288.0
60°	198.4	219.9	230.6	237.8	262.9
62.5°	175.7	192.4	203.1	211.5	241.4
65°	157.7	168.5	179.2	190.0	224.7
67.5°	143.4	145.8	157.7	173.3	210.3
70°	131.4	123.1	141.0	158.9	194.8
72.5°	118.3	104.0	126.7	144.6	176.9
75°	104.0	87.2	112.3	133.8	156.5
77.5°	88.4	72.9	100.4	121.9	137.4
80°	68.1	62.1	88.4	111.1	121.9
82.5°	47.8	51.4	76.5	101.6	108.7
85°	28.7	40.6	64.5	89.6	99.2
87.5°	13.1	29.9	49.0	77.7	92.0
90°	0.0	17.9	35.8	68.1	86.0
92.5°	1.2	17.9	35.8	69.3	84.8
95°	2.4	16.7	37.0	69.3	82.5
97.5°	4.8	16.7	40.6	68.1	80.1
100°	8.4	17.9	44.2	68.1	77.7
102.5°	11.9	19.1	47.8	69.3	76.5
105°	16.7	25.1	50.2	69.3	76.5
107.5°	21.5	33.5	53.8	70.5	76.5
110°	26.3	43.0	57.4	71.7	77.7



TEST NUMBER: P234489

CATALOG NUMBER: 4WSNLED-LD4-24SL-F-UNV-L835-CD1-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	31.1	50.2	59.7	75.3	80.1
115°	34.7	55.0	68.1	76.5	82.5
117.5°	39.4	58.6	76.5	77.7	82.5
120°	43.0	62.1	82.5	82.5	83.6
122.5°	47.8	64.5	87.2	92.0	90.8
125°	50.2	66.9	90.8	98.0	99.2
127.5°	53.8	68.1	94.4	101.6	102.8
130°	56.2	69.3	95.6	105.2	107.5
132.5°	57.4	69.3	95.6	107.5	109.9
135°	58.6	70.5	95.6	109.9	112.3
137.5°	59.7	69.3	95.6	111.1	113.5
140°	59.7	69.3	94.4	111.1	115.9
142.5°	60.9	69.3	92.0	111.1	115.9
145°	63.3	70.5	89.6	109.9	115.9
147.5°	64.5	70.5	88.4	107.5	114.7
150°	66.9	70.5	87.2	104.0	111.1
152.5°	68.1	70.5	84.8	100.4	106.4
155°	70.5	71.7	82.5	95.6	98.0
157.5°	71.7	71.7	81.3	90.8	90.8
160°	72.9	72.9	78.9	86.0	87.2
162.5°	74.1	74.1	77.7	81.3	83.6
165°	75.3	75.3	76.5	77.7	80.1
167.5°	76.5	76.5	75.3	72.9	76.5
170°	77.7	77.7	75.3	69.3	72.9
172.5°	77.7	78.9	75.3	66.9	69.3
175°	78.9	78.9	75.3	65.7	66.9
177.5°	78.9	78.9	75.3	63.3	63.3
180°	66.9	66.9	66.9	66.9	66.9

(END OF REPORT)