

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: P392813

Luminaire Tested: **12EN-LD2-23-UNV-L83050-W2A-1-U (4000K)**

Issue Date: 3/28/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P392813  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-563-36)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 12EN-LD2-23-UNV-L83050-W2A-1-U (4000K)  
Description: 1X2 ENCOUNTER, 2300 LUMENS, VIVIDTUNE TUNABLE WHITE  
Light Source: 2700K/6500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2305.3 lumens  
Efficiency: N/A  
Efficacy: 118.8 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.26 / 1.39  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

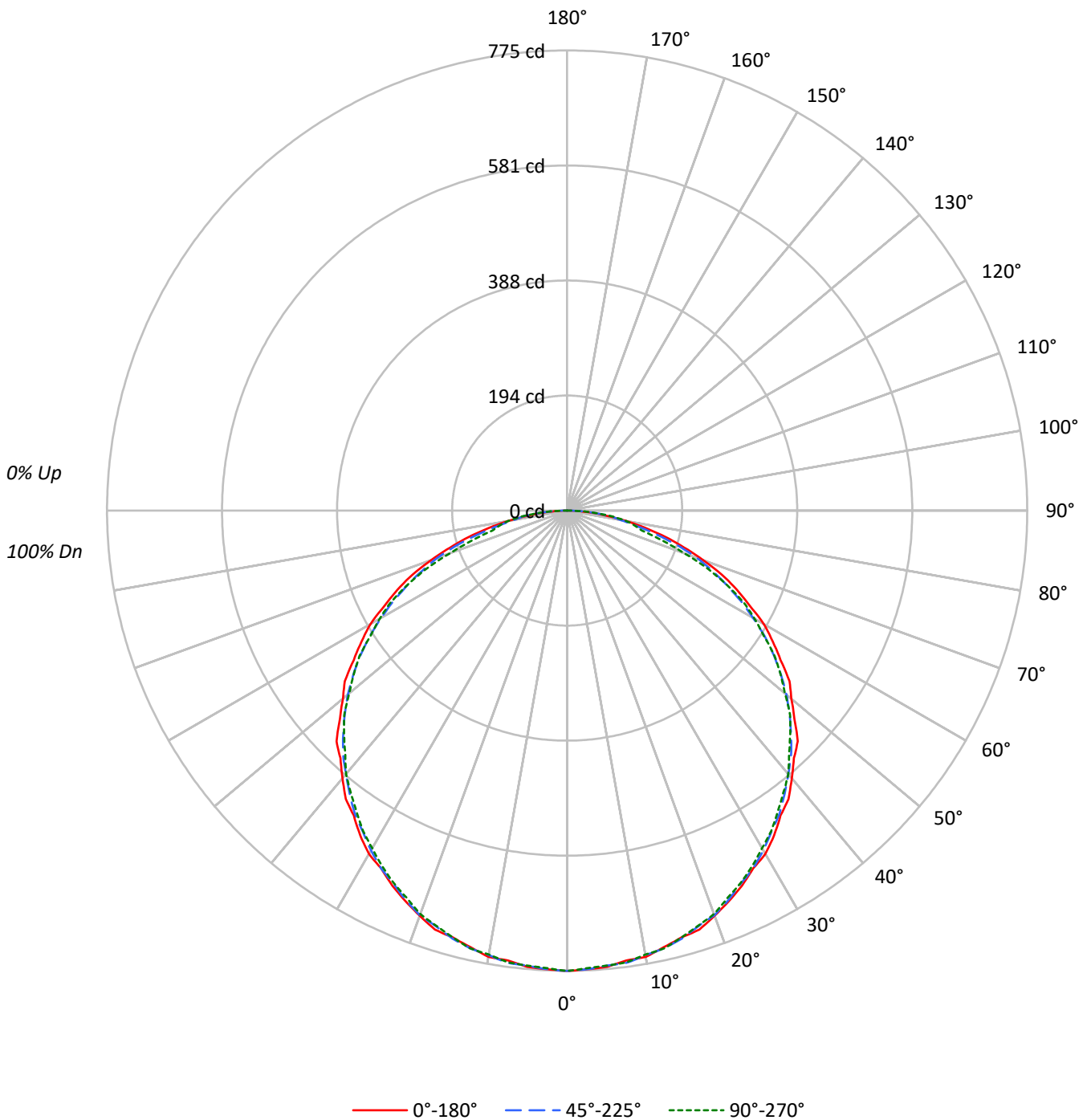
Input Watts (W): 19.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P392813

CATALOG NUMBER: 12EN-LD2-23-UNV-L83050-W2A-1-U (4000K)

### Luminous Intensity Polar Plot





TEST NUMBER: P392813

CATALOG NUMBER: 12EN-LD2-23-UNV-L83050-W2A-1-U (4000K)

**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	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					100			
1	108	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69					69			
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42					42			
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37					37			
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32					32			
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29					29			
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26					26			
10	52	39	31	26	51	38	31	25	37	30	25	36	30	25	35	29	25	23					23			

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

	0°	45°	90°
0°	4173	4173	4173
5°	4167	4156	4156
10°	4171	4154	4149
15°	4147	4158	4147
20°	4159	4153	4141
25°	4139	4115	4109
30°	4150	4107	4082
35°	4118	4097	4064
40°	4135	4071	4071
45°	4181	4059	4043
50°	4129	4036	4011
55°	4118	3986	4005
60°	4118	3891	3923
65°	4015	3773	3786
70°	3840	3651	3303
75°	3570	3238	2716
80°	3112	2802	3143
85°	2482	2976	3038



TEST NUMBER: P392813

CATALOG NUMBER: 12EN-LD2-23-UNV-L83050-W2A-1-U (4000K)

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.3	3.2
10°-20°	210.5	9.1
20°-30°	320.2	13.9
30°-40°	390.1	16.9
40°-50°	413.4	17.9
50°-60°	382.8	16.6
60°-70°	297.7	12.9
70°-80°	165.9	7.2
80°-90°	51.3	2.2
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°	604.0	26.2
0°-40°	994.1	43.1
0°-60°	1790.2	77.7
0°-90°	2305.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2305.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	775	775	775	775	775	
5°	771	768	769	771	769	73
15°	744	747	746	746	744	211
25°	697	697	693	691	692	321
35°	627	627	624	621	619	394
45°	549	540	533	529	531	420
55°	439	435	425	422	427	394
65°	315	308	296	299	297	311
75°	172	167	156	140	131	180
85°	40	41	48	49	49	48
90°	0	0	0	0	0	



TEST NUMBER: P392813

CATALOG NUMBER: 12EN-LD2-23-UNV-L83050-W2A-1-U (4000K)

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	775.3	775.3	775.3	775.3	775.3
2.5°	773.3	773.3	773.3	773.3	771.3
5°	771.3	768.3	769.3	771.3	769.3
7.5°	764.2	767.2	768.3	768.3	767.2
10°	763.2	760.2	760.2	760.2	759.2
12.5°	753.2	754.2	755.2	755.2	755.2
15°	744.2	747.2	746.2	746.2	744.2
17.5°	740.1	735.1	734.1	734.1	733.1
20°	726.1	724.1	725.1	723.1	723.1
22.5°	712.0	711.0	710.0	709.0	706.0
25°	697.0	697.0	692.9	690.9	691.9
27.5°	678.9	680.9	678.9	676.9	674.9
30°	667.8	662.8	660.8	658.8	656.8
32.5°	648.7	646.7	640.7	637.7	639.7
35°	626.7	626.7	623.6	620.6	618.6
37.5°	612.6	606.6	601.5	598.5	598.5
40°	588.5	588.5	579.5	575.4	579.5
42.5°	565.4	565.4	558.4	556.4	553.3
45°	549.3	540.3	533.3	529.2	531.2
47.5°	519.2	517.2	508.2	505.1	509.2
50°	493.1	492.1	482.0	480.0	479.0
52.5°	472.0	463.0	453.9	450.9	452.9
55°	438.9	434.8	424.8	421.8	426.8
57.5°	410.7	406.7	394.7	392.7	392.7
60°	382.6	373.6	361.5	359.5	364.5
62.5°	346.5	342.4	329.4	330.4	335.4
65°	315.3	308.3	296.3	299.3	297.3
67.5°	282.2	274.2	264.1	260.1	257.1
70°	244.0	239.0	232.0	217.9	209.9
72.5°	205.9	201.9	194.8	174.7	168.7
75°	171.7	166.7	155.7	139.6	130.6
77.5°	134.6	134.6	119.5	112.5	116.5
80°	100.4	101.4	90.4	98.4	101.4
82.5°	68.3	67.3	74.3	77.3	77.3
85°	40.2	41.2	48.2	49.2	49.2
87.5°	16.1	19.1	22.1	23.1	24.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)