

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: P392829

Luminaire Tested: **12EN-LD2-23-UNV-L93050-W2A-1-U (4000K)**

Issue Date: 3/28/2020

Test Information

Test Method: LM-79-08
Report Number: P392829
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-L93050-W2A-1-U (4000K)
Description: 1X2 ENCOUNTER, 2300 LUMENS, VIVIDTUNE TUNABLE WHITE
Light Source: 2700K/6500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2005.1 lumens
Efficiency: N/A
Efficacy: 105.0 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

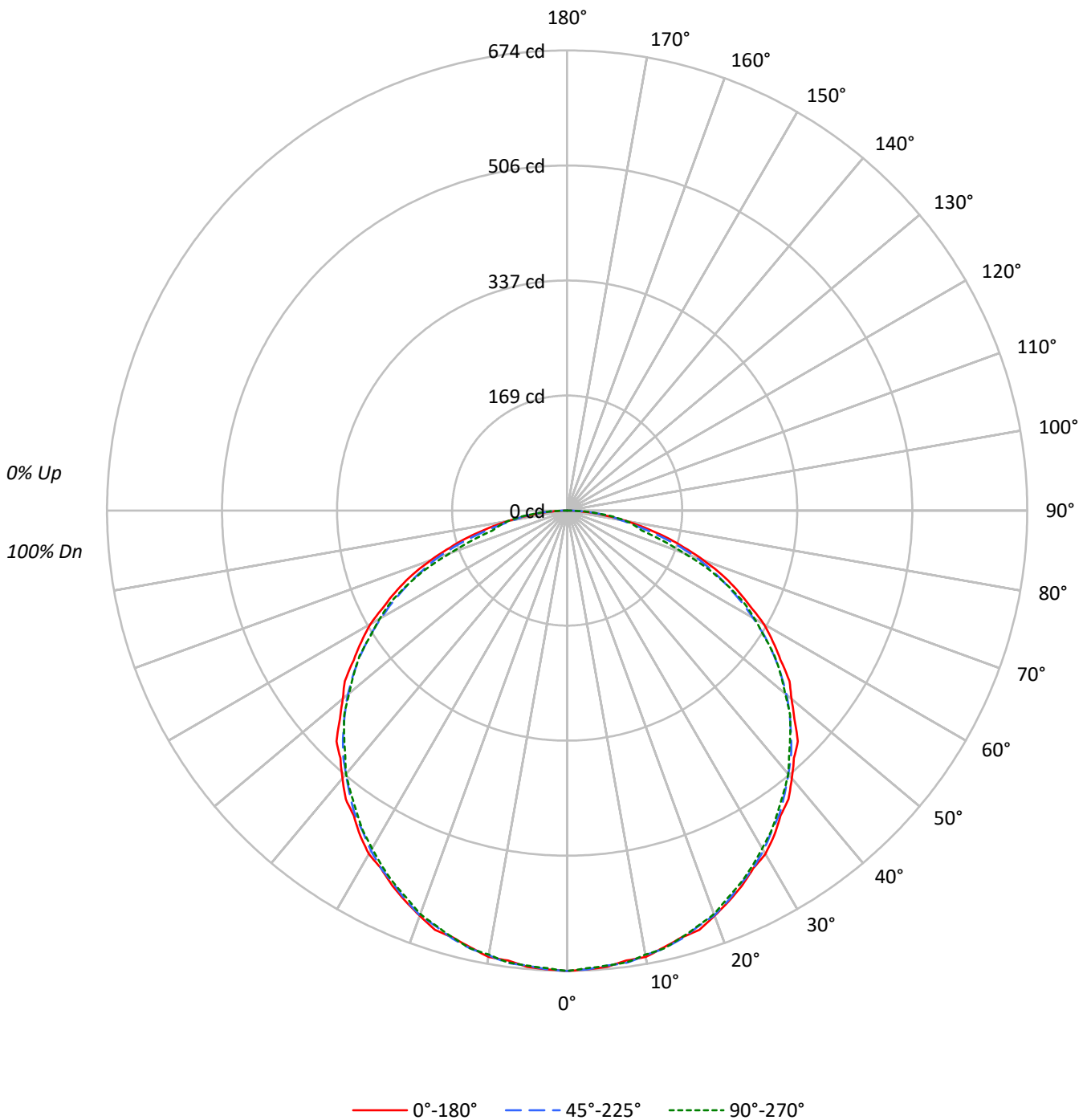
Input Watts (W): 19.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3629	3629	3629
5°	3625	3615	3615
10°	3628	3613	3609
15°	3607	3616	3607
20°	3617	3612	3602
25°	3600	3579	3574
30°	3610	3572	3550
35°	3581	3564	3535
40°	3596	3541	3541
45°	3637	3530	3517
50°	3591	3511	3489
55°	3582	3467	3483
60°	3582	3385	3413
65°	3493	3282	3293
70°	3341	3175	2873
75°	3107	2816	2362
80°	2709	2436	2734
85°	2155	2587	2643



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.7	3.2
10°-20°	183.1	9.1
20°-30°	278.5	13.9
30°-40°	339.3	16.9
40°-50°	359.5	17.9
50°-60°	332.9	16.6
60°-70°	259.0	12.9
70°-80°	144.3	7.2
80°-90°	44.7	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°	525.3	26.2
0°-40°	864.7	43.1
0°-60°	1557.1	77.7
0°-90°	2005.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2005.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	674	674	674	674	674	
5°	671	668	669	671	669	64
15°	647	650	649	649	647	183
25°	606	606	603	601	602	280
35°	545	545	542	540	538	343
45°	478	470	464	460	462	365
55°	382	378	370	367	371	342
65°	274	268	258	260	259	271
75°	149	145	135	121	114	157
85°	35	36	42	43	43	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	674.3	674.3	674.3	674.3	674.3
2.5°	672.6	672.6	672.6	672.6	670.9
5°	670.9	668.2	669.1	670.9	669.1
7.5°	664.7	667.4	668.2	668.2	667.4
10°	663.9	661.2	661.2	661.2	660.4
12.5°	655.1	656.0	656.9	656.9	656.9
15°	647.3	649.9	649.0	649.0	647.3
17.5°	643.8	639.4	638.5	638.5	637.7
20°	631.5	629.8	630.7	628.9	628.9
22.5°	619.3	618.4	617.6	616.7	614.1
25°	606.2	606.2	602.7	601.0	601.8
27.5°	590.5	592.2	590.5	588.7	587.0
30°	580.9	576.5	574.8	573.0	571.3
32.5°	564.3	562.5	557.3	554.7	556.4
35°	545.1	545.1	542.4	539.8	538.1
37.5°	532.8	527.6	523.2	520.6	520.6
40°	511.9	511.9	504.0	500.5	504.0
42.5°	491.8	491.8	485.7	483.9	481.3
45°	477.8	469.9	463.8	460.3	462.1
47.5°	451.6	449.9	442.0	439.4	442.9
50°	428.9	428.0	419.3	417.5	416.7
52.5°	410.5	402.7	394.8	392.2	394.0
55°	381.7	378.2	369.5	366.9	371.2
57.5°	357.3	353.8	343.3	341.5	341.5
60°	332.8	324.9	314.5	312.7	317.1
62.5°	301.4	297.9	286.5	287.4	291.8
65°	274.3	268.2	257.7	260.3	258.6
67.5°	245.5	238.5	229.7	226.2	223.6
70°	212.3	207.9	201.8	189.6	182.6
72.5°	179.1	175.6	169.5	152.0	146.7
75°	149.4	145.0	135.4	121.4	113.6
77.5°	117.0	117.0	103.9	97.8	101.3
80°	87.4	88.2	78.6	85.6	88.2
82.5°	59.4	58.5	64.6	67.3	67.3
85°	34.9	35.8	41.9	42.8	42.8
87.5°	14.0	16.6	19.2	20.1	21.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)