

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: P188694

Luminaire Tested: **24SR-LD2-45-C-UNV-L840-CD1-TB-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188694
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33587)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24SR-LD2-45-C-UNV-L840-CD1-TB-U
Description: METALUX 2X4 SKYRIDGE LED FIXTURE WITH TAHITIAN BLUE SKYTRIM.

Light Source: EATON LED 4000K
Ballast/Driver: OSRAM ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3038.0 lumens
Efficiency: N/A
Efficacy: 82.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 2.07 / 1.9
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

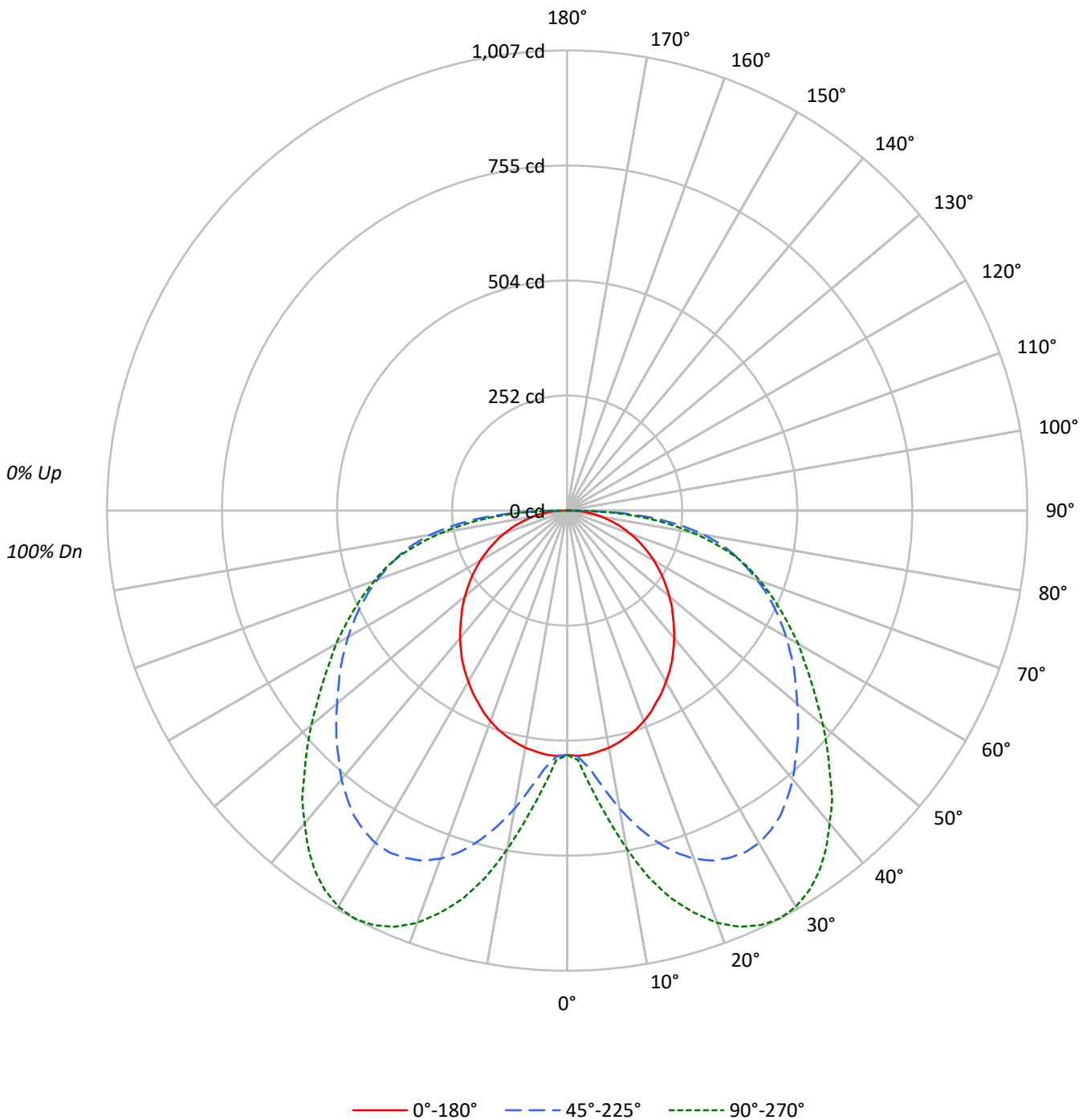
Input Watts (W): 36.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	106	100	95	91	103	98	93	89	94	90	86		90	86	83		86	83	81	79
2	95	86	78	71	93	84	77	70	80	74	69		77	72	67		74	69	65	63
3	86	74	65	58	83	73	64	57	69	62	56		67	60	55		64	59	54	52
4	78	65	55	48	76	64	54	47	61	53	47		59	52	46		56	50	45	43
5	72	58	48	40	69	56	47	40	54	46	40		52	45	39		50	44	39	36
6	66	51	42	35	64	50	41	35	49	40	34		47	39	34		45	39	34	31
7	61	46	37	30	59	45	37	30	44	36	30		42	35	30		41	34	29	27
8	56	42	33	27	55	41	33	27	40	32	26		39	31	26		37	31	26	24
9	53	38	30	24	51	38	29	24	37	29	24		35	28	23		34	28	23	21
10	49	35	27	21	48	35	27	21	34	26	21		33	26	21		32	25	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	720	720	720
5°	724	765	823
10°	720	905	1028
15°	712	1043	1223
20°	702	1161	1375
25°	687	1245	1486
30°	671	1305	1555
35°	658	1337	1581
40°	640	1350	1569
45°	622	1358	1547
50°	611	1376	1530
55°	600	1422	1529
60°	591	1490	1571
65°	580	1591	1640
70°	574	1737	1764
75°	571	1979	1961
80°	588	2352	2154
85°	648	2921	2524



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.0	1.9
10°-20°	205.7	6.8
20°-30°	366.4	12.1
30°-40°	475.2	15.6
40°-50°	506.7	16.7
50°-60°	487.4	16.0
60°-70°	436.1	14.4
70°-80°	343.4	11.3
80°-90°	160.1	5.3
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°	629.2	20.7
0°-40°	1104.3	36.4
0°-60°	2098.4	69.1
0°-90°	3038.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3038.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	535	535	535	535	535	
5°	536	542	566	597	610	51
15°	512	608	749	846	878	144
25°	462	646	838	965	1001	213
35°	401	615	814	931	962	250
45°	327	537	714	796	813	253
55°	256	461	606	646	652	229
65°	182	391	500	510	515	181
75°	110	301	381	376	377	116
85°	42	159	189	168	164	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	534.9	534.9	534.9	534.9	534.9	534.9	534.9	534.9	534.9	534.9	534.9
2.5°	537.2	537.2	536.1	536.1	537.2	537.2	537.2	537.2	538.4	538.4	539.6
5°	536.1	534.9	534.9	537.2	540.7	544.2	547.7	553.6	558.2	566.4	573.4
7.5°	531.4	531.4	533.7	539.6	547.7	559.4	572.3	586.3	599.1	612.0	627.1
10°	526.7	526.7	532.5	543.1	559.4	580.4	601.5	622.5	642.3	662.2	678.5
12.5°	519.7	520.9	530.2	548.9	575.8	605.0	631.8	658.7	685.5	707.7	732.3
15°	511.5	513.9	527.9	555.9	590.9	626.0	658.7	691.4	721.7	748.6	774.3
17.5°	502.2	505.7	525.5	561.7	602.6	642.3	683.2	720.6	753.3	783.6	812.8
20°	490.5	496.3	523.2	566.4	612.0	657.5	700.7	740.4	777.8	810.5	843.2
22.5°	477.7	484.7	518.5	567.6	617.8	666.9	714.7	755.6	795.3	829.2	863.1
25°	462.5	473.0	513.9	566.4	620.1	672.7	721.7	763.8	804.7	838.5	875.9
27.5°	448.5	460.1	505.7	561.7	617.8	672.7	721.7	766.1	808.2	843.2	879.4
30°	432.1	447.3	497.5	554.7	612.0	666.9	717.1	761.5	802.3	839.7	877.1
32.5°	416.9	433.3	484.7	543.1	601.5	656.3	707.7	750.9	791.8	829.2	865.4
35°	400.6	416.9	470.7	531.4	587.4	642.3	691.4	735.8	775.5	814.0	847.9
37.5°	381.9	400.6	455.5	515.0	569.9	624.8	672.7	715.9	755.6	791.8	824.5
40°	364.4	384.2	438.0	497.5	552.4	605.0	651.7	692.5	731.1	768.5	797.7
42.5°	345.7	366.7	421.6	478.8	532.5	582.8	627.1	669.2	706.6	739.3	768.5
45°	327.0	350.4	404.1	460.1	511.5	561.7	606.1	644.7	680.9	713.6	738.1
47.5°	310.7	334.0	385.4	441.5	492.8	540.7	583.9	621.3	656.3	685.5	710.1
50°	292.0	315.3	367.9	422.8	473.0	520.9	561.7	597.9	630.6	657.5	680.9
52.5°	273.3	299.0	350.4	405.3	455.5	501.0	541.9	576.9	606.1	630.6	650.5
55°	255.8	281.5	334.0	387.7	438.0	483.5	522.0	555.9	583.9	606.1	621.3
57.5°	237.1	265.1	318.8	372.6	421.6	464.8	503.4	534.9	560.6	579.3	592.1
60°	219.6	248.8	303.6	356.2	405.3	448.5	484.7	515.0	537.2	553.6	564.1
62.5°	200.9	232.4	287.3	339.9	387.7	430.9	464.8	492.8	513.9	526.7	533.7
65°	182.2	216.1	270.9	323.5	370.2	411.1	443.8	469.5	488.2	499.8	505.7
67.5°	164.7	199.7	254.6	306.0	351.5	390.1	421.6	446.1	462.5	471.8	474.2
70°	146.0	182.2	237.1	287.3	331.7	367.9	398.2	419.3	434.4	441.5	443.8
72.5°	128.5	164.7	218.4	267.4	309.5	343.4	372.6	393.6	406.4	411.1	411.1
75°	109.8	146.0	198.5	245.3	283.8	317.7	344.5	363.2	374.9	380.7	378.4
77.5°	91.1	127.3	177.5	220.7	255.8	286.1	313.0	330.5	342.2	345.7	343.4
80°	75.9	108.6	153.0	192.7	225.4	253.4	278.0	295.5	306.0	303.6	297.8
82.5°	58.4	88.8	127.3	161.2	190.4	217.2	240.6	254.6	256.9	252.3	245.3
85°	42.0	65.4	96.9	123.8	149.5	169.3	185.7	195.0	195.0	189.2	184.5
87.5°	24.5	38.5	56.1	74.7	86.4	99.3	112.1	114.5	114.5	114.5	108.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	534.9	534.9	534.9	534.9	534.9	534.9	534.9	534.9
2.5°	543.1	544.2	545.4	546.6	547.7	547.7	547.7	546.6
5°	580.4	587.4	593.3	600.3	602.6	605.0	607.3	609.6
7.5°	640.0	649.3	658.7	668.0	673.9	680.9	678.5	678.5
10°	697.2	714.7	725.2	736.9	742.8	749.8	753.3	752.1
12.5°	753.3	773.1	788.3	798.8	808.2	815.2	817.5	821.0
15°	801.2	821.0	839.7	852.5	864.2	871.2	875.9	878.2
17.5°	840.9	860.7	881.7	898.1	908.6	917.9	920.3	922.6
20°	870.1	895.8	915.6	933.1	944.8	954.2	958.8	960.0
22.5°	893.4	917.9	940.1	957.7	970.5	981.0	985.7	985.7
25°	906.3	932.0	955.3	974.0	986.9	996.2	1000.9	1000.9
27.5°	910.9	937.8	960.0	978.7	992.7	1002.0	1005.5	1006.7
30°	907.4	934.3	956.5	974.0	988.0	996.2	999.7	1000.9
32.5°	895.8	922.6	943.6	960.0	972.8	982.2	985.7	985.7
35°	877.1	901.6	922.6	939.0	950.6	957.7	962.3	962.3
37.5°	852.5	877.1	895.8	909.8	920.3	928.5	930.8	930.8
40°	824.5	845.5	863.1	877.1	886.4	892.3	894.6	893.4
42.5°	793.0	812.8	826.9	838.5	846.7	852.5	856.0	858.4
45°	760.3	779.0	791.8	801.2	807.0	810.5	814.0	812.8
47.5°	731.1	742.8	754.4	761.5	767.3	770.8	772.0	772.0
50°	697.2	707.7	717.1	722.9	726.4	728.8	728.8	731.1
52.5°	663.4	672.7	679.7	685.5	687.9	689.0	690.2	689.0
55°	633.0	638.8	643.5	648.2	650.5	651.7	654.0	651.7
57.5°	601.5	606.1	612.0	613.1	615.5	615.5	616.6	615.5
60°	569.9	573.4	575.8	576.9	580.4	581.6	581.6	583.9
62.5°	538.4	539.6	543.1	544.2	545.4	547.7	550.1	548.9
65°	506.9	508.0	509.2	511.5	513.9	516.2	516.2	515.0
67.5°	474.2	475.3	476.5	478.8	481.2	481.2	482.3	482.3
70°	442.6	442.6	443.8	445.0	447.3	448.5	449.6	448.5
72.5°	409.9	409.9	409.9	411.1	412.3	414.6	415.8	415.8
75°	376.1	376.1	376.1	374.9	376.1	378.4	377.2	377.2
77.5°	338.7	335.2	331.7	329.3	330.5	329.3	329.3	329.3
80°	292.0	286.1	281.5	279.1	278.0	279.1	278.0	278.0
82.5°	240.6	234.7	230.1	226.6	227.7	225.4	226.6	224.2
85°	178.7	174.0	169.3	167.0	168.2	168.2	167.0	163.5
87.5°	105.1	99.3	98.1	96.9	98.1	96.9	93.4	94.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)