

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: P188704

Luminaire Tested: **24SR-LD2-53-C-UNV-L840-CD1-TB-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P188704
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-LD2-53-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: 3581.0 lumens
Efficiency: N/A
Efficacy: 83.1 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

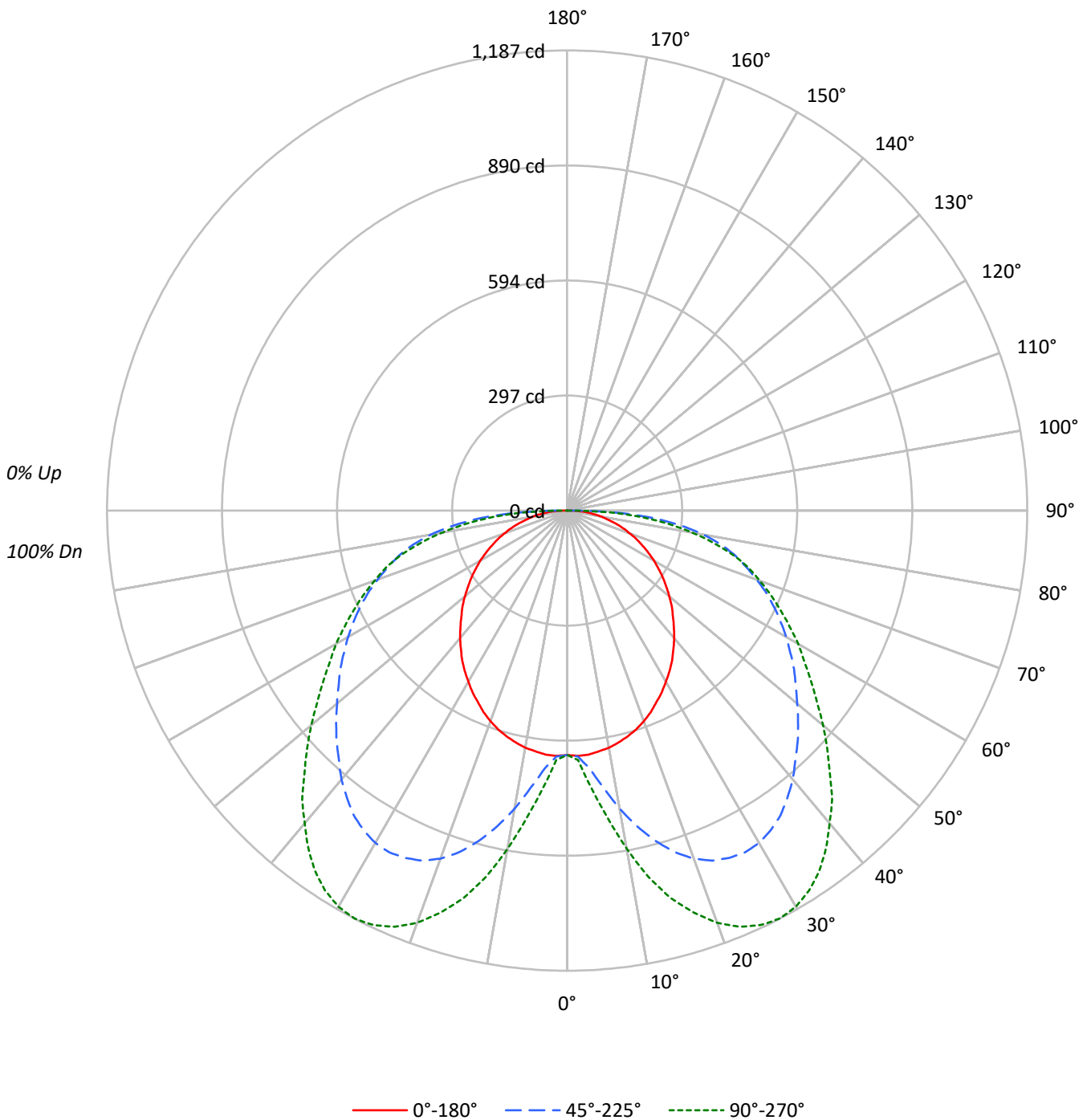
Input Watts (W): 43.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	848	848	848
5°	853	902	971
10°	848	1066	1211
15°	840	1229	1442
20°	828	1368	1620
25°	809	1467	1752
30°	791	1538	1833
35°	776	1576	1863
40°	754	1591	1850
45°	734	1600	1823
50°	720	1622	1804
55°	707	1676	1802
60°	696	1756	1852
65°	684	1876	1933
70°	677	2047	2079
75°	673	2333	2311
80°	693	2773	2538
85°	766	3443	2975



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.2	1.9
10°-20°	242.5	6.8
20°-30°	431.9	12.1
30°-40°	560.1	15.6
40°-50°	597.3	16.7
50°-60°	574.5	16.0
60°-70°	514.1	14.4
70°-80°	404.7	11.3
80°-90°	188.7	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°	741.6	20.7
0°-40°	1301.7	36.4
0°-60°	2473.5	69.1
0°-90°	3581.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3581.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	630	630	630	630	630	
5°	632	639	668	703	719	60
15°	603	717	882	997	1035	170
25°	545	762	988	1137	1180	251
35°	472	725	960	1097	1134	295
45°	386	633	841	939	958	298
55°	302	543	714	761	768	269
65°	215	460	589	602	607	213
75°	129	354	449	443	445	137
85°	50	188	223	198	193	52
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°	630.5	630.5	630.5	630.5	630.5	630.5	630.5	630.5	630.5	630.5	630.5
2.5°	633.2	633.2	631.9	631.9	633.2	633.2	633.2	633.2	634.6	634.6	636.0
5°	631.9	630.5	630.5	633.2	637.4	641.5	645.6	652.5	658.0	667.7	675.9
7.5°	626.4	626.4	629.1	636.0	645.6	659.4	674.5	691.1	706.2	721.3	739.2
10°	620.9	620.9	627.7	640.1	659.4	684.2	709.0	733.7	757.1	780.5	799.8
12.5°	612.6	614.0	625.0	647.0	678.7	713.1	744.7	776.4	808.1	834.2	863.1
15°	603.0	605.7	622.2	655.3	696.6	737.9	776.4	815.0	850.7	882.4	912.7
17.5°	591.9	596.1	619.5	662.1	710.3	757.1	805.3	849.4	887.9	923.7	958.1
20°	578.2	585.1	616.7	667.7	721.3	775.0	826.0	872.8	916.8	955.4	993.9
22.5°	563.0	571.3	611.2	669.0	728.2	786.0	842.5	890.7	937.5	977.4	1017.3
25°	545.1	557.5	605.7	667.7	731.0	792.9	850.7	900.3	948.5	988.4	1032.5
27.5°	528.6	542.4	596.1	662.1	728.2	792.9	850.7	903.1	952.6	993.9	1036.6
30°	509.3	527.2	586.4	653.9	721.3	786.0	845.2	897.6	945.7	989.8	1033.8
32.5°	491.5	510.7	571.3	640.1	709.0	773.7	834.2	885.2	933.3	977.4	1020.1
35°	472.2	491.5	554.8	626.4	692.4	757.1	815.0	867.3	914.1	959.5	999.4
37.5°	450.2	472.2	536.9	607.1	671.8	736.5	792.9	843.9	890.7	933.3	971.9
40°	429.5	452.9	516.2	586.4	651.1	713.1	768.1	816.3	861.8	905.8	940.2
42.5°	407.5	432.3	497.0	564.4	627.7	686.9	739.2	788.8	832.8	871.4	905.8
45°	385.5	413.0	476.3	542.4	603.0	662.1	714.5	759.9	802.6	841.1	870.0
47.5°	366.2	393.7	454.3	520.4	580.9	637.4	688.3	732.4	773.7	808.1	837.0
50°	344.2	371.7	433.6	498.3	557.5	614.0	662.1	704.8	743.4	775.0	802.6
52.5°	322.1	352.4	413.0	477.7	536.9	590.6	638.7	680.0	714.5	743.4	766.8
55°	301.5	331.8	393.7	457.0	516.2	569.9	615.3	655.3	688.3	714.5	732.4
57.5°	279.5	312.5	375.8	439.1	497.0	547.9	593.3	630.5	660.8	682.8	697.9
60°	258.8	293.2	357.9	419.9	477.7	528.6	571.3	607.1	633.2	652.5	664.9
62.5°	236.8	273.9	338.6	400.6	457.0	508.0	547.9	580.9	605.7	620.9	629.1
65°	214.8	254.7	319.4	381.3	436.4	484.6	523.1	553.4	575.4	589.2	596.1
67.5°	194.1	235.4	300.1	360.7	414.4	459.8	497.0	525.9	545.1	556.2	558.9
70°	172.1	214.8	279.5	338.6	391.0	433.6	469.4	494.2	512.1	520.4	523.1
72.5°	151.4	194.1	257.4	315.2	364.8	404.7	439.1	463.9	479.1	484.6	484.6
75°	129.4	172.1	234.0	289.1	334.5	374.4	406.1	428.1	441.9	448.8	446.0
77.5°	107.4	150.1	209.2	260.2	301.5	337.3	368.9	389.6	403.3	407.5	404.7
80°	89.5	128.0	180.3	227.1	265.7	298.7	327.6	348.3	360.7	357.9	351.0
82.5°	68.8	104.6	150.1	190.0	224.4	256.0	283.6	300.1	302.9	297.3	289.1
85°	49.6	77.1	114.3	145.9	176.2	199.6	218.9	229.9	229.9	223.0	217.5
87.5°	28.9	45.4	66.1	88.1	101.9	117.0	132.2	134.9	134.9	134.9	128.0
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°	630.5	630.5	630.5	630.5	630.5	630.5	630.5	630.5
2.5°	640.1	641.5	642.9	644.3	645.6	645.6	645.6	644.3
5°	684.2	692.4	699.3	707.6	710.3	713.1	715.8	718.6
7.5°	754.4	765.4	776.4	787.4	794.3	802.6	799.8	799.8
10°	821.8	842.5	854.9	868.6	875.5	883.8	887.9	886.5
12.5°	887.9	911.3	929.2	941.6	952.6	960.9	963.6	967.8
15°	944.4	967.8	989.8	1004.9	1018.7	1027.0	1032.5	1035.2
17.5°	991.2	1014.6	1039.3	1058.6	1071.0	1082.0	1084.8	1087.5
20°	1025.6	1055.9	1079.3	1099.9	1113.7	1124.7	1130.2	1131.6
22.5°	1053.1	1082.0	1108.2	1128.8	1144.0	1156.4	1161.9	1161.9
25°	1068.3	1098.5	1126.1	1148.1	1163.2	1174.2	1179.8	1179.8
27.5°	1073.8	1105.4	1131.6	1153.6	1170.1	1181.1	1185.3	1186.6
30°	1069.6	1101.3	1127.4	1148.1	1164.6	1174.2	1178.4	1179.8
32.5°	1055.9	1087.5	1112.3	1131.6	1146.7	1157.7	1161.9	1161.9
35°	1033.8	1062.7	1087.5	1106.8	1120.6	1128.8	1134.3	1134.3
37.5°	1004.9	1033.8	1055.9	1072.4	1084.8	1094.4	1097.2	1097.2
40°	971.9	996.7	1017.3	1033.8	1044.8	1051.7	1054.5	1053.1
42.5°	934.7	958.1	974.6	988.4	998.0	1004.9	1009.1	1011.8
45°	896.2	918.2	933.3	944.4	951.2	955.4	959.5	958.1
47.5°	861.8	875.5	889.3	897.6	904.4	908.6	909.9	909.9
50°	821.8	834.2	845.2	852.1	856.3	859.0	859.0	861.8
52.5°	781.9	792.9	801.2	808.1	810.8	812.2	813.6	812.2
55°	746.1	753.0	758.5	764.0	766.8	768.1	770.9	768.1
57.5°	709.0	714.5	721.3	722.7	725.5	725.5	726.9	725.5
60°	671.8	675.9	678.7	680.0	684.2	685.6	685.6	688.3
62.5°	634.6	636.0	640.1	641.5	642.9	645.6	648.4	647.0
65°	597.4	598.8	600.2	603.0	605.7	608.5	608.5	607.1
67.5°	558.9	560.3	561.7	564.4	567.2	567.2	568.5	568.5
70°	521.7	521.7	523.1	524.5	527.2	528.6	530.0	528.6
72.5°	483.2	483.2	483.2	484.6	485.9	488.7	490.1	490.1
75°	443.3	443.3	443.3	441.9	443.3	446.0	444.6	444.6
77.5°	399.2	395.1	391.0	388.2	389.6	388.2	388.2	388.2
80°	344.2	337.3	331.8	329.0	327.6	329.0	327.6	327.6
82.5°	283.6	276.7	271.2	267.1	268.4	265.7	267.1	264.3
85°	210.6	205.1	199.6	196.9	198.2	198.2	196.9	192.7
87.5°	123.9	117.0	115.6	114.3	115.6	114.3	110.1	111.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)