

LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: METALUX

Report Number: P843361

Luminaire Tested: 24CGSB-80-L940

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843361
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-80-L940
 Description: 2x4 CGSB AT 8000LM 4000K 90CRI
 Light Source: -
 Ballast/Driver: -

Summary

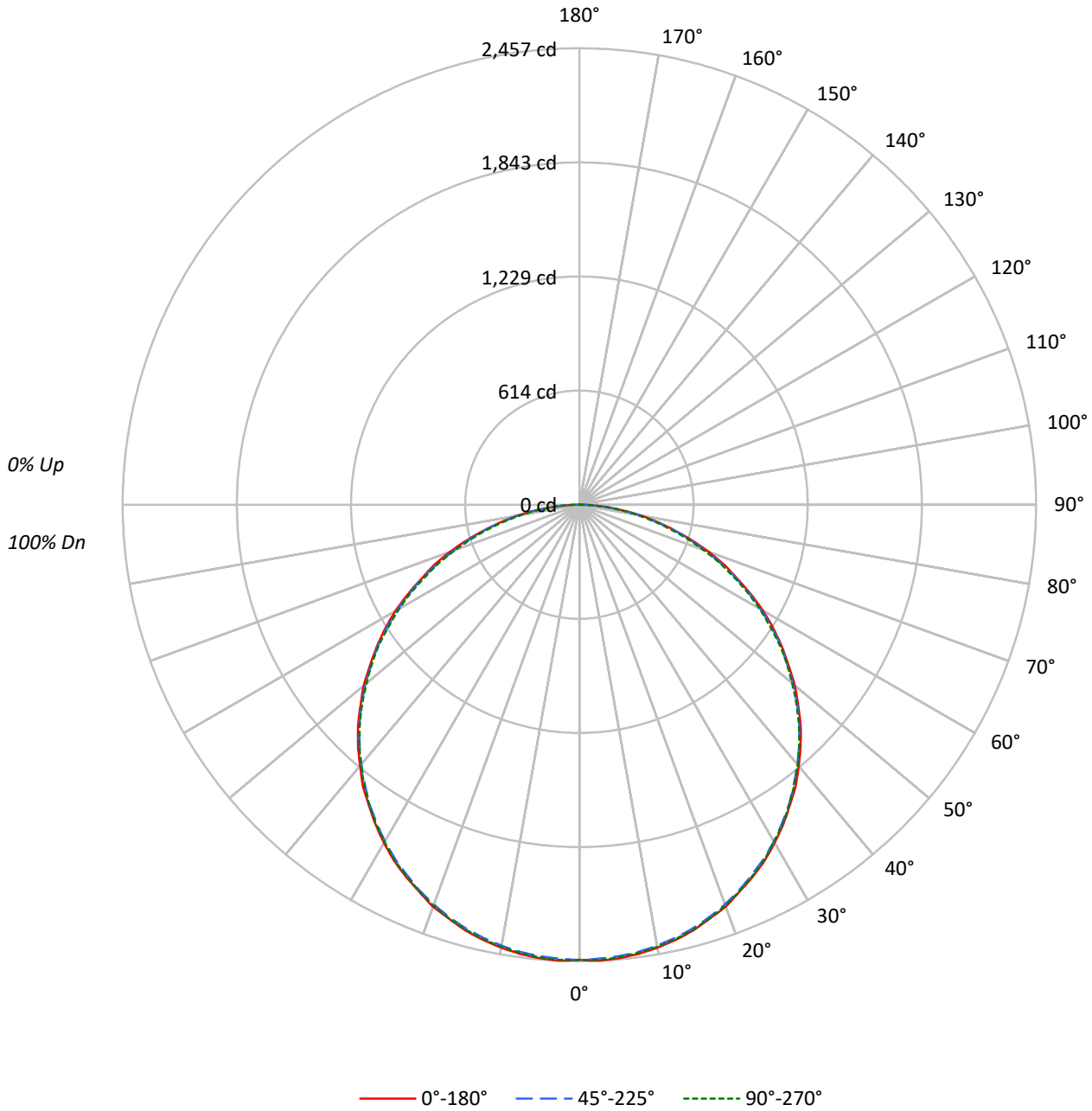
Lumens per Lamp: N/A
 Luminaire Lumens: 7248.6 lumens
 Efficiency: N/A
 Efficacy: 108.3 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

Input Watts (W): 66.9
 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: 24 FT

Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	P3	10/30/2015	4/30/2016
Power Meter	IN0214	1/12/2016	1/12/2017
AC Power Source	IN0062	1/12/2016	1/12/2017
DC Power Supply	--	--	--
Room Thermometer	IN0145	1/13/2016	1/13/2017

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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	108	103	99	95	106	101	97	93	97	94	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	62	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3296	3296	3296
5°	3309	3294	3303
10°	3308	3292	3302
15°	3304	3288	3298
20°	3297	3278	3287
25°	3279	3263	3272
30°	3265	3251	3255
35°	3243	3232	3235
40°	3224	3205	3209
45°	3204	3183	3179
50°	3170	3141	3127
55°	3117	3101	3086
60°	3071	3035	3011
65°	2972	2951	2908
70°	2908	2829	2785
75°	2752	2717	2624
80°	2631	2544	2440
85°	2345	2309	2138

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3204 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.2	3.2
10°-20°	667.0	9.2
20°-30°	1015.1	14.0
30°-40°	1232.0	17.0
40°-50°	1290.3	17.8
50°-60°	1179.0	16.3
60°-70°	916.3	12.6
70°-80°	549.5	7.6
80°-90°	167.1	2.3
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°	1914.3	26.4
0°-40°	3146.3	43.4
0°-60°	5615.6	77.5
0°-90°	7248.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7248.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2450	2450	2450	2450	2450	
5°	2450	2443	2439	2439	2446	233
15°	2372	2363	2361	2361	2367	669
25°	2209	2200	2198	2200	2204	1018
35°	1974	1970	1968	1968	1970	1237
45°	1684	1675	1673	1670	1670	1297
55°	1329	1324	1322	1311	1315	1188
65°	934	931	927	916	913	930
75°	529	527	523	514	505	563
85°	152	150	150	145	138	171
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2450.0	2450.0	2450.0	2450.0	2450.0
2.5°	2456.7	2447.7	2445.5	2445.5	2452.2
5°	2450.0	2443.3	2438.8	2438.8	2445.5
7.5°	2438.8	2429.9	2427.6	2427.6	2432.1
10°	2420.9	2414.2	2409.8	2409.8	2416.5
12.5°	2398.6	2389.7	2387.4	2389.7	2394.1
15°	2371.8	2362.9	2360.6	2360.6	2367.3
17.5°	2336.1	2329.4	2327.1	2327.1	2333.8
20°	2302.6	2291.4	2289.2	2291.4	2295.9
22.5°	2253.4	2249.0	2246.7	2249.0	2251.2
25°	2208.8	2199.8	2197.6	2199.8	2204.3
27.5°	2159.6	2150.7	2148.5	2148.5	2155.2
30°	2101.6	2094.9	2092.6	2092.6	2094.9
32.5°	2041.3	2036.8	2030.1	2032.3	2036.8
35°	1974.3	1969.8	1967.6	1967.6	1969.8
37.5°	1911.7	1902.8	1896.1	1896.1	1900.6
40°	1835.8	1831.3	1824.6	1826.9	1826.9
42.5°	1762.1	1755.4	1750.9	1748.7	1750.9
45°	1683.9	1675.0	1672.8	1670.5	1670.5
47.5°	1596.8	1596.8	1590.1	1585.7	1583.4
50°	1514.2	1505.3	1500.8	1494.1	1494.1
52.5°	1418.2	1415.9	1409.2	1407.0	1407.0
55°	1328.8	1324.4	1322.1	1311.0	1315.4
57.5°	1237.3	1228.3	1226.1	1219.4	1214.9
60°	1141.2	1136.8	1127.8	1118.9	1118.9
62.5°	1038.5	1036.3	1027.3	1020.6	1018.4
65°	933.5	931.3	926.8	915.7	913.4
67.5°	844.2	835.3	824.1	815.2	815.2
70°	739.2	728.1	719.1	710.2	708.0
72.5°	632.0	625.3	620.9	611.9	605.2
75°	529.3	527.1	522.6	513.7	504.7
77.5°	433.3	431.0	419.9	413.2	406.5
80°	339.5	330.5	328.3	319.4	314.9
82.5°	239.0	243.4	232.3	230.0	227.8
85°	151.9	149.6	149.6	145.2	138.5
87.5°	67.0	69.2	69.2	69.2	69.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)