

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: P843308

Luminaire Tested: 24CGSB-40-L835

Issue Date: 5/31/2024

Tested By:

Approved By:



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Test Information

Test Method: LM-79-2019
 Report Number: P843308
 Test Lab: INNOVATION CENTER
 Issue Date: 5/31/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: METALUX
 Catalog Number: 24CGSB-40-L835
 Description: 2x4 CGSB AT 4000LM 3500K 80CRI
 Light Source: -
 Ballast/Driver: -

Summary

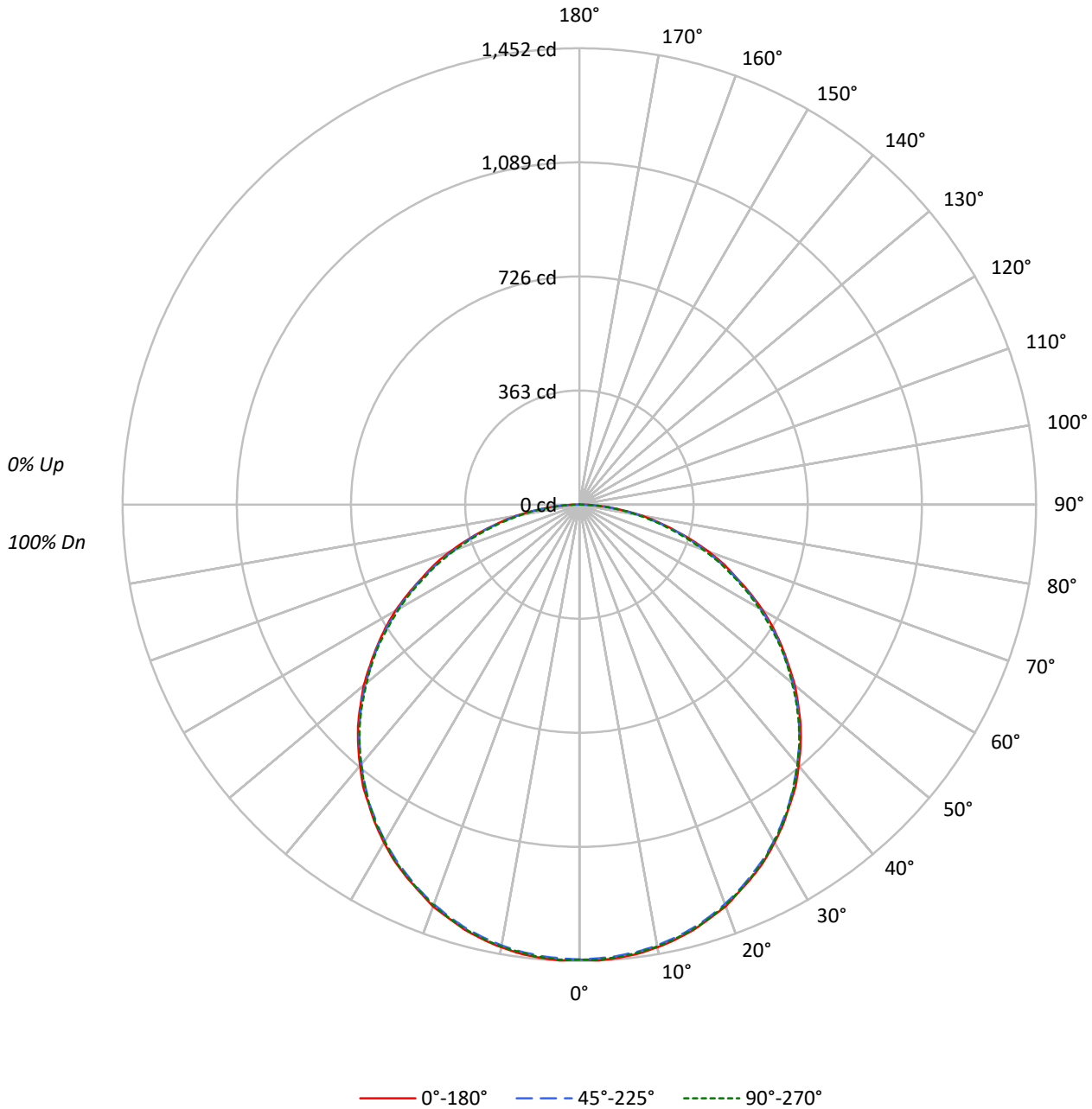
Lumens per Lamp: N/A
 Luminaire Lumens: 4282.7 lumens
 Efficiency: N/A
 Efficacy: 133.4 lumens/watt
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39
 Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
 CIE Type: Direct

Input Watts (W): 32.1
 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: 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°	1948	1948	1948
5°	1955	1946	1952
10°	1954	1945	1951
15°	1952	1943	1948
20°	1948	1937	1942
25°	1937	1928	1934
30°	1929	1921	1923
35°	1916	1909	1912
40°	1905	1894	1896
45°	1893	1881	1878
50°	1873	1856	1848
55°	1842	1833	1823
60°	1815	1793	1779
65°	1756	1743	1718
70°	1718	1672	1646
75°	1626	1605	1550
80°	1554	1503	1442
85°	1385	1365	1263

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1893 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.2	3.2
10°-20°	394.1	9.2
20°-30°	599.7	14.0
30°-40°	727.9	17.0
40°-50°	762.4	17.8
50°-60°	696.6	16.3
60°-70°	541.4	12.6
70°-80°	324.7	7.6
80°-90°	98.7	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°	1131.0	26.4
0°-40°	1858.9	43.4
0°-60°	3317.9	77.5
0°-90°	4282.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4282.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1448	1448	1448	1448	1448	
5°	1448	1444	1441	1441	1445	138
15°	1401	1396	1395	1395	1399	395
25°	1305	1300	1298	1300	1302	602
35°	1166	1164	1162	1162	1164	731
45°	995	990	988	987	987	766
55°	785	782	781	775	777	702
65°	552	550	548	541	540	549
75°	313	311	309	304	298	333
85°	90	88	88	86	82	101
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1447.5	1447.5	1447.5	1447.5	1447.5
2.5°	1451.5	1446.2	1444.9	1444.9	1448.9
5°	1447.5	1443.6	1440.9	1440.9	1444.9
7.5°	1440.9	1435.7	1434.3	1434.3	1437.0
10°	1430.4	1426.4	1423.8	1423.8	1427.7
12.5°	1417.2	1411.9	1410.6	1411.9	1414.5
15°	1401.4	1396.1	1394.8	1394.8	1398.7
17.5°	1380.2	1376.3	1375.0	1375.0	1378.9
20°	1360.4	1353.8	1352.5	1353.8	1356.5
22.5°	1331.4	1328.8	1327.5	1328.8	1330.1
25°	1305.0	1299.7	1298.4	1299.7	1302.4
27.5°	1276.0	1270.7	1269.4	1269.4	1273.4
30°	1241.7	1237.7	1236.4	1236.4	1237.7
32.5°	1206.1	1203.4	1199.5	1200.8	1203.4
35°	1166.5	1163.8	1162.5	1162.5	1163.8
37.5°	1129.5	1124.2	1120.3	1120.3	1122.9
40°	1084.7	1082.0	1078.1	1079.4	1079.4
42.5°	1041.1	1037.2	1034.5	1033.2	1034.5
45°	994.9	989.7	988.3	987.0	987.0
47.5°	943.5	943.5	939.5	936.9	935.6
50°	894.6	889.4	886.7	882.8	882.8
52.5°	837.9	836.6	832.6	831.3	831.3
55°	785.1	782.5	781.2	774.6	777.2
57.5°	731.0	725.7	724.4	720.5	717.8
60°	674.3	671.6	666.4	661.1	661.1
62.5°	613.6	612.3	607.0	603.0	601.7
65°	551.6	550.2	547.6	541.0	539.7
67.5°	498.8	493.5	486.9	481.6	481.6
70°	436.8	430.2	424.9	419.6	418.3
72.5°	373.4	369.5	366.8	361.6	357.6
75°	312.7	311.4	308.8	303.5	298.2
77.5°	256.0	254.7	248.1	244.1	240.2
80°	200.6	195.3	194.0	188.7	186.1
82.5°	141.2	143.8	137.2	135.9	134.6
85°	89.7	88.4	88.4	85.8	81.8
87.5°	39.6	40.9	40.9	40.9	40.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)