

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: AMETRIX

Report Number: P189134

Luminaire Tested: A02-SI-A-1-LED-40K-D-120-S

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2019
Report Number: P189134
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (ITL87330-GONIOPHOTOMETRY)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: AMETRIX
Catalog Number: A02-SI-A-1-LED-40K-D-120-S
Description: ARROWLINEAR LED LUMINAIRE, EXTRA SMALL HOUSING
2-FOOT LONG EXTRUDED HOUSING WITH WHITE REFLECTOR AND FROSTED LENS
Light Source: (56) 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

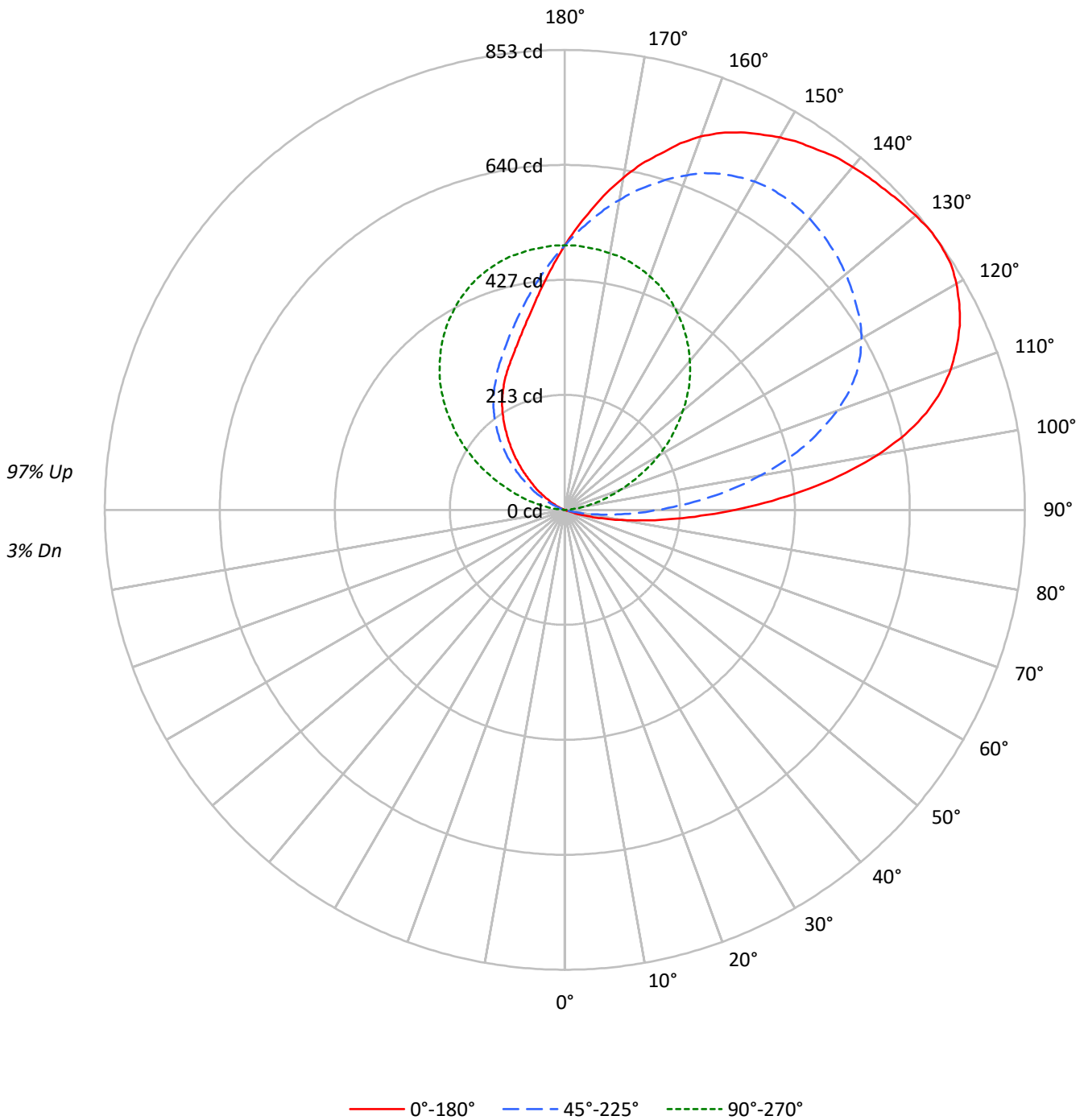
Lumens per Lamp: N/A
Luminaire Lumens: 2085.7 lumens
Efficiency: N/A
Efficacy: 101.7 lumens/watt
Spacing Criteria (0/90/45): - / - / -
Luminous Opening: Rectangular w/ Sides (W: 2.18' x L: 0.29' x H: 0.11')
CIE Type: Indirect

Input Watts (W): 20.5
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: 24 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	96	96	96	96	82	82	82	82	57	57	57	34	34	34	13	13	13	3
1	86	82	78	74	74	70	67	64	48	46	45	28	27	26	10	9	9	1
2	78	71	65	60	67	61	56	52	42	39	36	25	23	21	8	8	7	0
3	71	62	55	50	61	54	48	43	37	33	30	22	20	18	7	7	6	0
4	65	55	47	42	55	47	41	36	33	29	26	19	17	15	7	6	5	0
5	59	49	41	35	51	42	36	31	29	25	22	17	15	13	6	5	4	0
6	55	43	36	30	46	37	31	26	26	22	19	15	13	11	5	4	4	0
7	50	39	31	26	43	33	27	23	23	19	16	14	11	10	5	4	3	0
8	46	35	28	23	40	30	24	20	21	17	14	12	10	8	4	3	3	0
9	43	32	25	20	37	27	21	17	19	15	12	11	9	7	4	3	2	0
10	40	29	22	17	34	25	19	15	17	13	11	10	8	7	4	3	2	0

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	0	0	0	0	0
5°	0	0	0	0	0
10°	0	0	0	0	0
15°	0	0	0	0	0
20°	0	0	0	0	0
25°	0	0	0	0	0
30°	0	0	0	0	0
35°	0	0	0	0	0
40°	0	0	0	0	0
45°	0	0	0	0	0
50°	0	0	0	0	0
55°	0	0	0	0	0
60°	0	0	0	0	0
65°	0	0	0	0	0
70°	258	0	0	0	0
75°	1322	196	0	0	0
80°	3414	1484	0	0	0
85°	7259	4289	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 14228 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.0	0.0
10°-20°	0.0	0.0
20°-30°	0.0	0.0
30°-40°	0.0	0.0
40°-50°	0.0	0.0
50°-60°	0.0	0.0
60°-70°	0.2	0.0
70°-80°	10.4	0.5
80°-90°	54.1	2.6
90°-100°	139.9	6.7
100°-110°	233.2	11.2
110°-120°	296.9	14.2
120°-130°	327.7	15.7
130°-140°	323.8	15.5
140°-150°	289.1	13.9
150°-160°	224.3	10.8
160°-170°	139.2	6.7
170°-180°	46.8	2.2
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	64.7	3.1
90°-120°	670.0	32.1
90°-150°	1610.7	77.2
90°-180°	2021.0	96.9
0°-180°	2085.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	0	0	0	0	0	
5°	0	0	0	0	0	0
15°	0	0	0	0	0	0
25°	0	0	0	0	0	0
35°	0	0	0	0	0	0
45°	0	0	0	0	0	0
55°	0	0	0	0	0	0
65°	0	0	0	0	0	1
75°	48	6	0	0	0	56
85°	197	98	0	0	0	144
90°	316	174	0	0	0	174
95°	456	270	13	1	1	400
105°	694	461	73	3	4	726
115°	808	596	155	34	13	798
125°	852	660	244	90	57	762
135°	840	695	326	160	120	651
145°	816	709	392	231	196	513
155°	772	688	442	291	264	357
165°	683	625	475	357	327	195
175°	558	538	488	443	426	55
180°	490	490	490	490	490	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	10.5	11.5	8.4	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	26.2	26.2	22.0	14.7	5.2	0.0	0.0	0.0	0.0	0.0	0.0
75°	48.2	48.2	43.0	33.5	19.9	6.3	0.0	0.0	0.0	0.0	0.0
77.5°	75.5	74.4	68.1	56.6	39.8	21.0	3.1	0.0	0.0	0.0	0.0
80°	109.0	108.0	100.6	85.9	66.0	40.9	15.7	0.0	0.0	0.0	0.0
82.5°	148.8	147.8	138.4	121.6	97.5	67.1	33.5	7.3	0.0	0.0	0.0
85°	197.1	196.0	184.5	164.6	136.3	97.5	55.6	22.0	2.1	0.0	0.0
87.5°	252.6	248.4	237.9	213.8	177.1	133.1	82.8	39.8	9.4	0.0	0.0
90°	315.5	311.3	298.7	270.4	226.4	174.0	115.3	61.8	22.0	2.1	0.0
92.5°	384.7	383.6	364.8	331.2	279.9	219.1	153.0	88.0	38.8	10.5	4.2
95°	455.9	454.9	433.9	395.2	337.5	270.4	191.8	117.4	59.7	23.1	12.6
97.5°	526.2	525.1	498.9	459.1	395.2	320.7	233.7	149.9	82.8	38.8	25.2
100°	590.1	588.0	560.8	518.8	451.8	369.0	275.7	182.4	106.9	55.6	38.8
102.5°	646.7	642.5	616.3	572.3	504.2	417.2	316.5	215.9	134.2	75.5	55.6
105°	693.9	688.6	664.5	619.5	549.2	461.2	357.4	250.5	161.4	96.4	73.4
107.5°	731.6	727.4	702.3	659.3	590.1	500.0	396.2	284.1	189.7	118.4	91.2
110°	762.0	758.9	735.8	692.8	624.7	537.7	431.8	317.6	219.1	142.5	112.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	786.1	784.0	762.0	719.0	655.1	569.2	463.3	349.0	247.4	166.7	133.1
115°	808.1	806.0	785.1	744.2	680.3	596.4	492.6	379.4	276.7	190.8	155.1
117.5°	824.9	822.8	801.8	762.0	700.2	617.4	516.7	407.7	307.1	215.9	178.2
120°	838.5	835.4	816.5	777.7	716.9	635.2	537.7	435.0	335.4	241.1	200.2
122.5°	849.0	845.9	828.0	788.2	729.5	649.9	557.6	461.2	362.7	265.2	223.3
125°	852.2	850.1	833.3	793.5	735.8	660.3	575.4	484.2	386.8	289.3	244.2
127.5°	853.2	851.1	834.3	795.6	741.0	670.8	591.2	505.2	409.8	311.3	265.2
130°	849.0	849.0	832.2	795.6	744.2	680.3	605.8	525.1	429.7	332.3	286.1
132.5°	844.8	843.8	829.1	794.5	747.3	688.6	619.5	541.9	448.6	352.2	306.1
135°	839.6	839.6	826.0	794.5	750.5	694.9	631.0	556.6	464.3	370.0	326.0
137.5°	835.4	835.4	822.8	793.5	752.6	701.2	641.5	568.1	480.1	387.8	343.8
140°	830.1	830.1	817.6	791.4	753.6	705.4	647.8	577.5	490.5	403.5	360.6
142.5°	824.9	824.9	812.3	788.2	753.6	707.5	654.1	584.9	502.1	418.2	377.3
145°	815.5	816.5	806.0	783.0	750.5	708.6	656.1	589.1	510.5	431.8	392.0
147.5°	808.1	808.1	798.7	776.7	746.3	707.5	656.1	591.2	517.8	443.4	406.7
150°	797.6	797.6	788.2	770.4	742.1	703.3	655.1	592.2	523.0	453.9	419.3
152.5°	785.1	786.1	776.7	759.9	732.7	696.0	648.8	590.1	526.2	463.3	431.8
155°	772.5	773.5	765.2	748.4	722.2	687.6	642.5	588.0	529.3	471.7	442.3
157.5°	756.8	757.8	749.4	732.7	708.6	676.1	632.0	583.8	531.4	478.0	452.8
160°	736.9	737.9	728.5	713.8	690.7	660.3	621.6	577.5	530.4	484.2	461.2
162.5°	712.7	712.7	705.4	691.8	669.8	643.6	609.0	570.2	529.3	488.4	468.5
165°	683.4	685.5	679.2	666.6	647.8	624.7	594.3	560.8	526.2	491.6	474.8
167.5°	657.2	656.1	650.9	641.5	624.7	605.8	579.6	551.3	523.0	494.7	480.1
170°	625.8	624.7	620.5	612.1	599.5	583.8	562.9	540.9	518.8	494.7	483.2
172.5°	593.3	591.2	588.0	582.8	573.3	561.8	546.1	529.3	512.6	494.7	486.3
175°	557.6	557.6	555.5	551.3	545.0	537.7	527.2	515.7	505.2	493.7	488.4
177.5°	524.1	524.1	523.0	520.9	517.8	514.6	509.4	504.2	498.9	492.6	490.5
180°	490.5	490.5	490.5	490.5	490.5	490.5	490.5	490.5	490.5	490.5	490.5



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
0°	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.0
7.5°	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0
12.5°	0.0	0.0	0.0	0.0
15°	0.0	0.0	0.0	0.0
17.5°	0.0	0.0	0.0	0.0
20°	0.0	0.0	0.0	0.0
22.5°	0.0	0.0	0.0	0.0
25°	0.0	0.0	0.0	0.0
27.5°	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0
32.5°	0.0	0.0	0.0	0.0
35°	0.0	0.0	0.0	0.0
37.5°	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0
42.5°	0.0	0.0	0.0	0.0
45°	0.0	0.0	0.0	0.0
47.5°	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0
52.5°	0.0	0.0	0.0	0.0
55°	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	1.0	1.0
95°	0.0	1.0	1.0	1.0
97.5°	1.0	1.0	2.1	2.1
100°	3.1	2.1	2.1	2.1
102.5°	10.5	3.1	3.1	3.1
105°	18.9	3.1	4.2	4.2
107.5°	30.4	6.3	4.2	4.2
110°	43.0	12.6	5.2	5.2

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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
112.5°	56.6	22.0	9.4	7.3
115°	71.3	33.5	16.8	12.6
117.5°	87.0	45.1	27.3	21.0
120°	103.8	58.7	37.7	31.4
122.5°	121.6	74.4	51.4	43.0
125°	138.4	90.1	65.0	56.6
127.5°	156.2	106.9	79.7	71.3
130°	174.0	124.7	95.4	85.9
132.5°	191.8	142.5	113.2	102.7
135°	209.6	160.4	131.0	120.5
137.5°	226.4	179.2	149.9	139.4
140°	243.2	196.0	168.8	158.3
142.5°	261.0	213.8	187.6	177.1
145°	276.7	230.6	205.4	196.0
147.5°	293.5	246.3	224.3	214.9
150°	309.2	261.0	241.1	232.7
152.5°	324.9	275.7	255.8	248.4
155°	341.7	291.4	270.4	264.1
157.5°	357.4	306.1	285.1	278.8
160°	373.1	321.8	300.8	293.5
162.5°	388.9	339.6	316.5	309.2
165°	405.6	357.4	334.4	327.0
167.5°	420.3	377.3	354.3	346.9
170°	435.0	398.3	377.3	370.0
172.5°	448.6	420.3	403.5	396.2
175°	462.2	443.4	430.8	425.6
177.5°	476.9	467.5	459.1	457.0
180°	490.5	490.5	490.5	490.5

(END OF REPORT)