

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: NEO-RAY

Report Number: P1033179

Luminaire Tested: S124DIW-B1020D470UB27-4F0-XX-W2A-D1

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033179
REPORT IS A COMBINATION OF REPORTS P996821 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D470UB27-4F0-XX-W2A-D1
Description: Define 4 Direct/Indirect Wall Mount with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

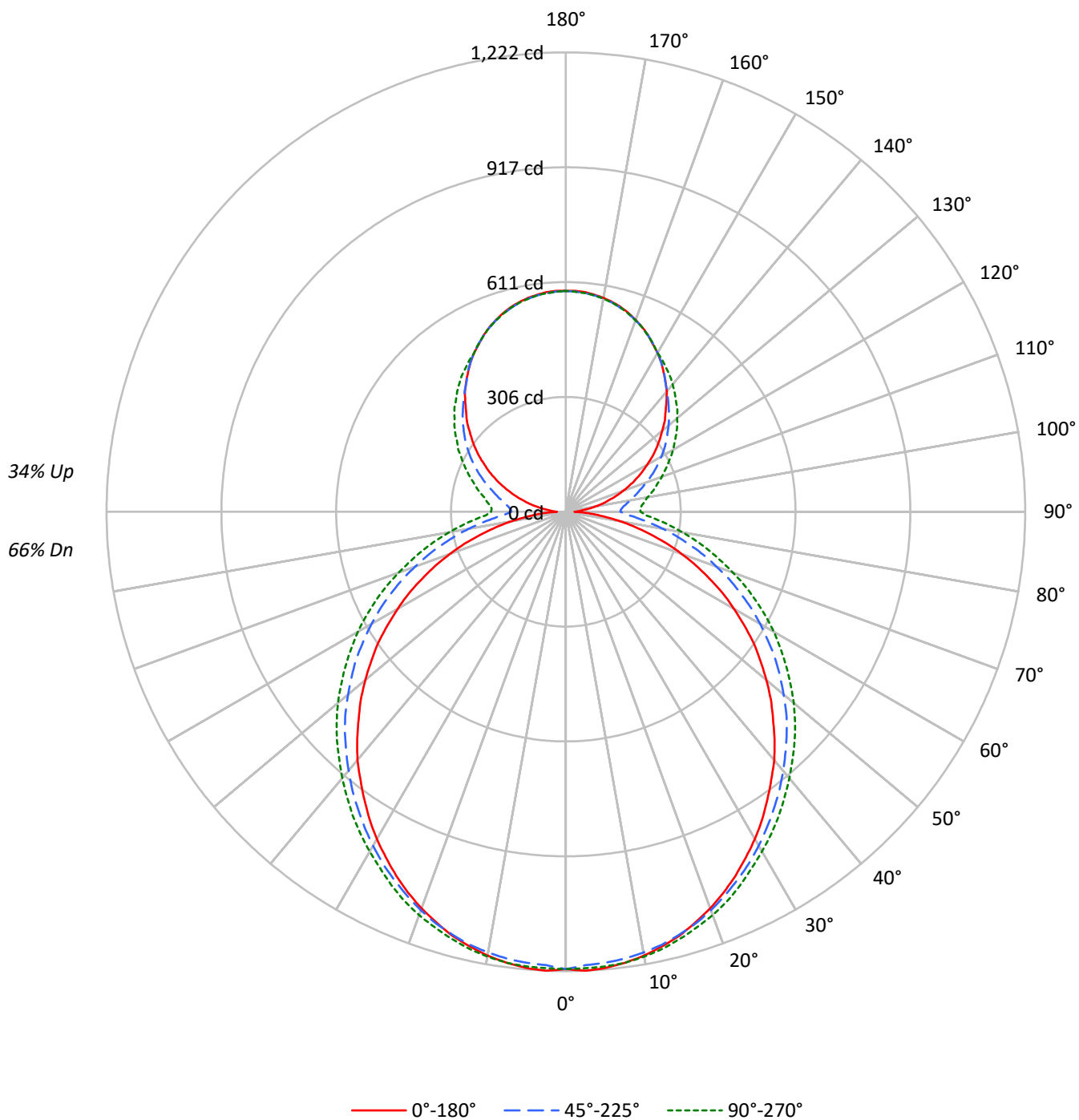
Lumens per Lamp: N/A
Luminaire Lumens: 5779.0 lumens
Efficiency: N/A
Efficacy: 96.3 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 60
Input Voltage (V):
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: 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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	111	111	111	111	105	105	105	105	92	92	92		81	81	81		71
1	100	95	91	87	94	90	86	82	79	76	73		70	67	65		61
2	91	82	75	70	85	78	71	66	69	64	60		60	57	53		53
3	82	72	64	57	77	68	61	55	60	54	50		53	48	45		46
4	75	63	55	48	70	60	52	46	53	47	42		47	42	38		41
5	69	56	48	41	64	53	45	39	47	41	36		42	37	33		37
6	63	51	42	36	59	48	40	34	43	36	31		38	32	28		33
7	59	46	37	31	55	43	35	30	39	32	27		34	29	25		30
8	54	41	33	28	51	39	32	26	35	29	24		31	26	22		28
9	51	38	30	25	48	36	29	24	32	26	22		29	24	20		26
10	47	35	27	22	45	33	26	21	30	24	20		27	22	18		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9921	9921	9921
5°	9948	9663	9680
10°	9884	9472	9445
15°	9791	9259	9181
20°	9654	9027	8923
25°	9499	8772	8646
30°	9333	8519	8363
35°	9144	8261	8111
40°	8992	8012	7851
45°	8768	7780	7620
50°	8577	7515	7378
55°	8379	7260	7098
60°	8072	6942	6834
65°	7734	6601	6517
70°	7324	6209	6151
75°	6752	5776	5802
80°	6108	5332	5436
85°	5254	4887	5140

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 8768 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.3	2.0
10°-20°	330.3	5.7
20°-30°	499.4	8.6
30°-40°	604.2	10.5
40°-50°	638.7	11.1
50°-60°	601.1	10.4
60°-70°	498.8	8.6
70°-80°	350.0	6.1
80°-90°	198.6	3.4
90°-100°	155.8	2.7
100°-110°	201.7	3.5
110°-120°	253.2	4.4
120°-130°	289.8	5.0
130°-140°	302.8	5.2
140°-150°	286.4	5.0
150°-160°	238.6	4.1
160°-170°	158.7	2.7
170°-180°	55.6	1.0
0°-30°	945.0	16.4
0°-40°	1549.1	26.8
0°-60°	2789.0	48.3
0°-90°	3836.5	66.4
90°-120°	610.6	10.6
90°-150°	1489.7	25.8
90°-180°	1943.0	33.6
0°-180°	5779.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1217	1217	1217	1217	1217	
5°	1218	1214	1204	1215	1214	116
15°	1168	1169	1165	1177	1176	329
25°	1068	1076	1080	1095	1097	492
35°	935	951	965	984	988	585
45°	779	805	831	854	861	602
55°	610	639	680	707	715	544
65°	422	466	512	546	557	419
75°	234	285	342	380	392	249
85°	72	129	191	232	245	75
90°	23	83	145	187	199	17
95°	45	94	153	191	204	44
105°	118	146	198	234	246	126
115°	206	218	261	291	300	204
125°	294	293	326	351	358	262
135°	375	378	387	408	415	290
145°	453	454	454	462	466	284
155°	518	518	517	519	517	238
165°	564	562	562	564	562	159
175°	586	584	584	587	584	56
180°	587	587	587	587	587	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1216.6	1216.6	1216.6	1216.6	1216.6
2.5°	1222.1	1218.0	1207.1	1216.6	1215.3
5°	1218.0	1213.9	1204.4	1215.3	1213.9
7.5°	1209.8	1207.1	1198.9	1211.2	1209.8
10°	1198.9	1197.6	1190.7	1203.0	1201.6
12.5°	1183.9	1183.9	1179.8	1190.7	1190.7
15°	1167.6	1168.9	1164.9	1177.1	1175.8
17.5°	1145.8	1149.9	1148.5	1160.8	1159.4
20°	1122.6	1126.7	1128.1	1141.7	1141.7
22.5°	1096.7	1102.2	1104.9	1118.5	1121.3
25°	1068.1	1076.3	1080.4	1095.4	1096.7
27.5°	1036.8	1049.1	1054.5	1068.1	1069.5
30°	1005.5	1016.4	1025.9	1040.9	1043.6
32.5°	971.4	985.0	995.9	1013.6	1016.4
35°	934.6	951.0	964.6	983.7	987.7
37.5°	897.8	916.9	933.3	952.3	956.4
40°	862.4	880.1	899.2	919.6	925.1
42.5°	821.5	842.0	865.1	888.3	892.4
45°	779.3	805.2	831.1	854.2	861.0
47.5°	739.8	765.7	795.6	818.8	827.0
50°	696.2	726.2	756.1	783.4	791.6
52.5°	652.6	682.6	718.0	745.2	753.4
55°	610.4	639.0	679.8	707.1	715.3
57.5°	562.7	598.1	637.6	670.3	677.1
60°	516.4	551.8	596.7	628.1	639.0
62.5°	471.4	510.9	555.9	587.2	598.1
65°	422.3	465.9	512.3	546.3	557.2
67.5°	376.0	422.3	471.4	505.5	516.4
70°	328.3	374.7	426.4	463.2	472.8
72.5°	282.0	329.7	385.6	421.0	431.9
75°	234.3	284.7	342.0	380.1	392.4
77.5°	189.4	242.5	302.5	340.6	354.2
80°	148.5	203.0	262.9	303.8	314.7
82.5°	107.6	164.9	224.8	267.0	279.3
85°	72.2	129.4	190.7	231.6	245.2
87.5°	45.0	100.8	160.8	200.3	212.5
90°	23.2	82.7	144.9	187.1	198.9
92.5°	32.2	85.8	146.7	186.3	197.6
95°	45.0	94.0	153.0	191.2	203.5
97.5°	59.9	103.1	162.6	199.8	212.1
100°	78.6	115.8	173.0	210.7	220.3
102.5°	99.5	129.9	185.3	222.1	233.5
105°	118.1	145.8	198.0	233.5	245.7
107.5°	140.4	164.0	212.1	248.0	257.1
110°	161.7	181.7	229.0	259.4	271.6

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	183.9	200.3	244.3	274.3	285.2
115°	206.3	218.5	261.2	290.7	299.7
117.5°	228.5	236.6	277.1	304.3	313.8
120°	249.4	255.3	293.4	318.5	330.3
122.5°	272.5	273.0	309.3	335.2	342.5
125°	293.9	292.6	326.1	351.1	358.4
127.5°	314.3	314.4	340.7	364.4	373.4
130°	334.8	334.8	356.6	380.2	386.5
132.5°	357.1	356.6	372.5	394.7	402.5
135°	374.7	377.5	387.1	408.0	414.7
137.5°	396.1	396.2	402.5	421.5	428.9
140°	417.4	417.1	418.4	435.6	441.9
142.5°	435.7	436.6	434.7	449.7	455.1
145°	453.4	453.8	454.3	462.0	466.1
147.5°	471.6	472.4	472.0	472.9	477.9
150°	487.9	488.3	488.3	488.3	487.9
152.5°	502.0	502.9	503.3	504.7	503.3
155°	517.9	517.9	517.4	519.2	517.4
157.5°	531.5	530.6	530.6	532.0	530.6
160°	543.3	542.9	542.4	543.8	541.5
162.5°	554.2	552.8	552.4	555.1	552.8
165°	563.8	562.4	561.5	564.2	562.4
167.5°	571.5	569.7	569.7	572.4	569.7
170°	577.8	575.6	576.0	578.7	575.6
172.5°	582.4	580.6	580.6	583.7	580.6
175°	586.5	584.2	583.7	586.9	583.7
177.5°	588.3	586.0	586.0	589.2	585.6
180°	587.4	587.4	587.4	587.4	587.4

(END OF REPORT)