

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: P1033769

Luminaire Tested: S124DIW-B795D470UB27-4F0-XX-W2A-F1

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033769
REPORT IS A COMBINATION OF REPORTS P998144 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B795D470UB27-4F0-XX-W2A-F1
Description: Define 4 Direct/Indirect Wall Mount with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

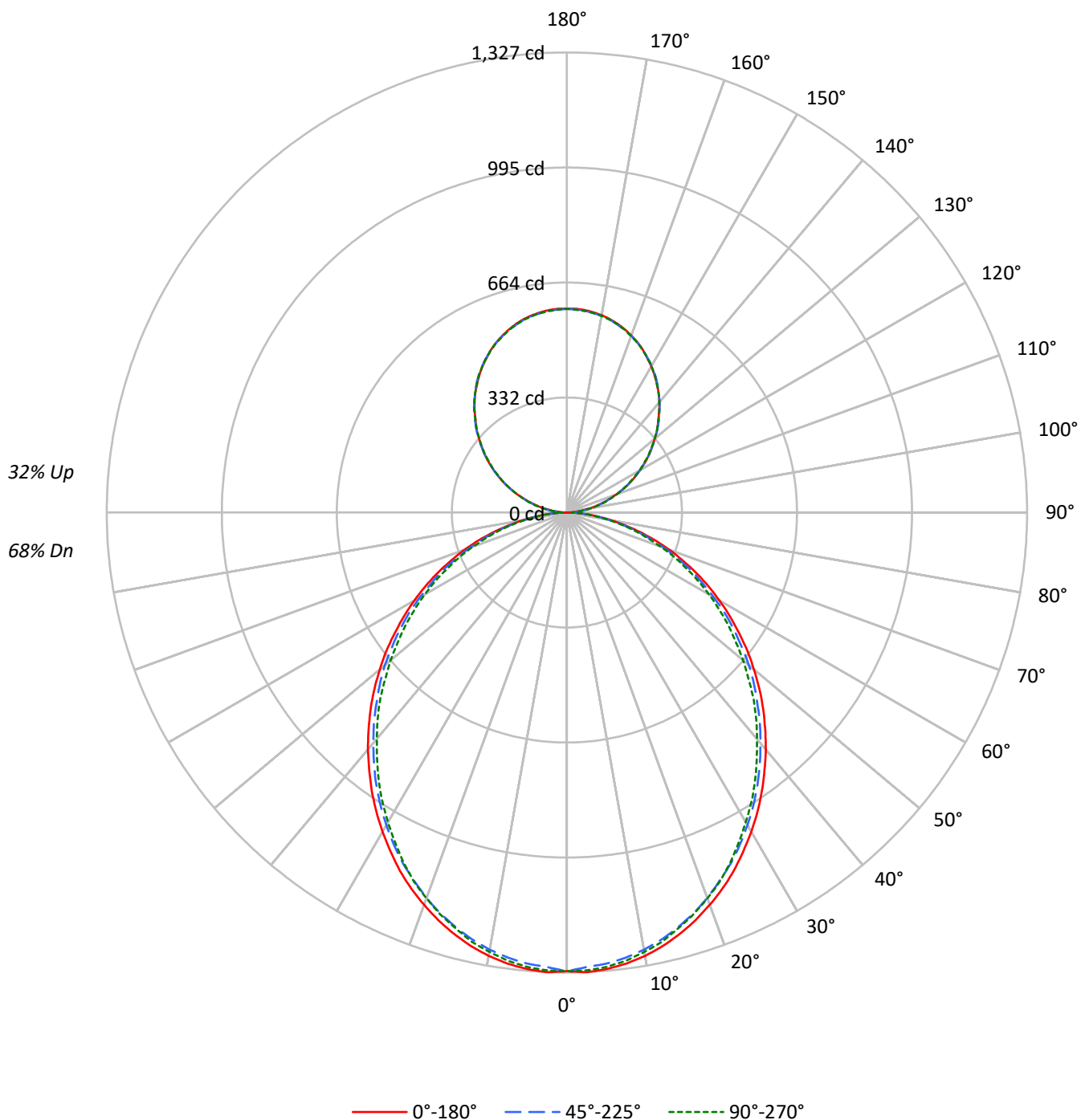
Lumens per Lamp: N/A
Luminaire Lumens: 5027.0 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 49.1
Input Voltage (V):
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	111	111	111	111	105	105	105	105	93	93	93		82	82	82		72	72	72	68
1	102	97	93	90	96	92	88	85	82	79	77		72	70	69		64	62	61	57
2	93	85	79	73	87	80	75	70	72	67	63		64	60	57		56	54	51	48
3	85	75	67	61	79	71	64	58	63	58	53		56	52	48		50	47	44	40
4	77	66	58	52	73	63	55	50	56	50	46		50	45	42		45	41	38	35
5	71	59	51	44	67	56	48	43	50	44	39		45	40	36		40	36	33	30
6	66	53	45	39	62	50	43	37	45	39	34		41	36	32		36	32	29	26
7	61	48	40	34	57	46	38	33	41	35	30		37	32	28		33	29	26	23
8	56	44	36	30	53	42	34	29	38	32	27		34	29	25		31	26	23	21
9	53	40	32	27	50	38	31	26	35	29	24		31	26	23		28	24	21	19
10	49	37	29	24	46	35	28	24	32	26	22		29	24	21		26	22	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10789	10789	10789
5°	10798	10479	10492
10°	10706	10188	10117
15°	10553	9842	9694
20°	10357	9468	9255
25°	10136	9072	8784
30°	9870	8645	8267
35°	9595	8208	7766
40°	9307	7737	7234
45°	9005	7265	6737
50°	8673	6807	6186
55°	8310	6272	5639
60°	7938	5686	5069
65°	7514	5082	4427
70°	7025	4354	3738
75°	6294	3509	2994
80°	5363	2537	2106
85°	4162	1412	1134

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9005 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.7	2.5
10°-20°	351.3	7.0
20°-30°	517.1	10.3
30°-40°	601.1	12.0
40°-50°	601.0	12.0
50°-60°	525.7	10.5
60°-70°	390.3	7.8
70°-80°	221.4	4.4
80°-90°	64.7	1.3
90°-100°	38.3	0.8
100°-110°	114.7	2.3
110°-120°	194.8	3.9
120°-130°	256.9	5.1
130°-140°	288.6	5.7
140°-150°	283.6	5.6
150°-160°	238.5	4.7
160°-170°	158.7	3.2
170°-180°	55.6	1.1
0°-30°	993.1	19.8
0°-40°	1594.2	31.7
0°-60°	2720.9	54.1
0°-90°	3397.3	67.6
90°-120°	347.8	6.9
90°-150°	1176.9	23.4
90°-180°	1630.0	32.4
0°-180°	5027.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1323	1323	1323	1323	1323	
5°	1322	1318	1306	1318	1316	125
15°	1258	1254	1238	1245	1242	355
25°	1140	1132	1117	1118	1114	524
35°	981	973	958	951	946	613
45°	800	793	776	764	761	617
55°	605	602	587	575	568	542
65°	410	405	394	384	378	406
75°	218	213	208	204	202	232
85°	57	57	55	55	54	62
90°	1	6	10	13	14	6
95°	27	31	34	36	36	30
105°	106	106	108	110	111	112
115°	198	198	197	197	196	195
125°	288	288	288	287	286	257
135°	372	375	375	374	372	288
145°	452	454	454	454	452	283
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°	1323.1	1323.1	1323.1	1323.1	1323.1
2.5°	1327.3	1324.2	1312.5	1323.1	1322.0
5°	1322.0	1317.8	1306.1	1317.8	1315.7
7.5°	1312.5	1308.3	1295.5	1305.1	1304.0
10°	1298.7	1294.5	1280.7	1289.2	1287.1
12.5°	1280.7	1276.5	1261.6	1271.2	1268.0
15°	1258.4	1254.2	1238.3	1244.6	1241.5
17.5°	1233.0	1227.7	1212.8	1217.1	1215.0
20°	1204.4	1199.1	1183.2	1186.3	1184.2
22.5°	1173.6	1166.2	1150.3	1156.7	1152.4
25°	1139.7	1132.3	1117.4	1118.5	1114.2
27.5°	1101.5	1094.1	1080.3	1078.2	1072.9
30°	1063.4	1054.9	1041.1	1036.9	1031.6
32.5°	1023.1	1015.7	1000.8	995.5	990.2
35°	980.7	973.2	958.4	951.0	945.7
37.5°	936.1	929.8	913.9	906.5	899.0
40°	892.7	884.2	868.3	857.7	852.4
42.5°	846.0	841.8	823.8	811.0	807.9
45°	800.4	793.0	776.1	764.4	761.2
47.5°	752.7	747.4	731.5	718.8	710.3
50°	704.0	699.7	684.9	670.0	663.7
52.5°	656.3	650.9	635.0	622.3	613.8
55°	605.4	602.2	587.3	574.6	568.3
57.5°	557.7	554.5	539.6	526.9	520.5
60°	507.8	502.5	488.7	479.2	473.9
62.5°	459.1	454.8	440.0	431.5	426.2
65°	410.3	405.0	394.4	383.8	378.5
67.5°	360.5	356.2	345.6	335.0	334.0
70°	314.9	307.5	299.0	290.5	287.3
72.5°	266.1	258.7	252.3	246.0	242.8
75°	218.4	213.1	207.8	203.6	202.5
77.5°	171.7	169.6	164.3	163.3	160.1
80°	130.4	127.2	125.1	123.0	121.9
82.5°	90.1	89.1	89.1	88.0	86.9
85°	57.2	57.2	55.1	55.1	54.1
87.5°	27.6	26.5	25.4	25.4	25.4
90°	1.4	6.4	10.0	12.7	13.6
92.5°	11.8	17.7	20.0	21.4	21.8
95°	27.3	31.3	34.5	35.9	35.9
97.5°	43.6	47.2	50.9	52.7	52.7
100°	63.6	65.4	69.5	70.4	70.4
102.5°	84.5	84.9	88.6	89.9	90.4
105°	105.8	106.3	108.1	109.5	110.8
107.5°	128.1	128.6	129.0	130.8	130.4
110°	150.8	151.7	151.3	150.4	151.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	174.4	174.4	173.5	173.5	173.5
115°	198.1	198.1	197.2	196.7	196.2
117.5°	220.3	220.3	219.9	218.5	217.1
120°	242.6	244.4	243.0	240.8	241.7
122.5°	265.7	266.2	265.7	264.4	262.1
125°	288.5	288.5	288.0	287.1	286.2
127.5°	308.9	310.3	309.4	308.5	308.0
130°	330.7	332.1	332.1	331.2	329.3
132.5°	353.0	353.9	353.4	352.5	352.1
135°	372.0	374.8	374.8	373.9	372.5
137.5°	393.4	394.8	395.7	394.3	394.8
140°	414.7	415.7	415.7	415.2	414.7
142.5°	434.3	435.2	434.7	434.7	434.7
145°	452.0	453.8	454.3	453.8	452.5
147.5°	470.2	472.4	472.0	471.5	471.1
150°	486.5	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)