

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: P1033191

Luminaire Tested: S124DIW-B1020D470UB35-4F0-XX-W2A-D1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033191
REPORT IS A COMBINATION OF REPORTS P996860 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D470UB35-4F0-XX-W2A-D1
Description: Define 4 Direct/Indirect Wall Mount with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

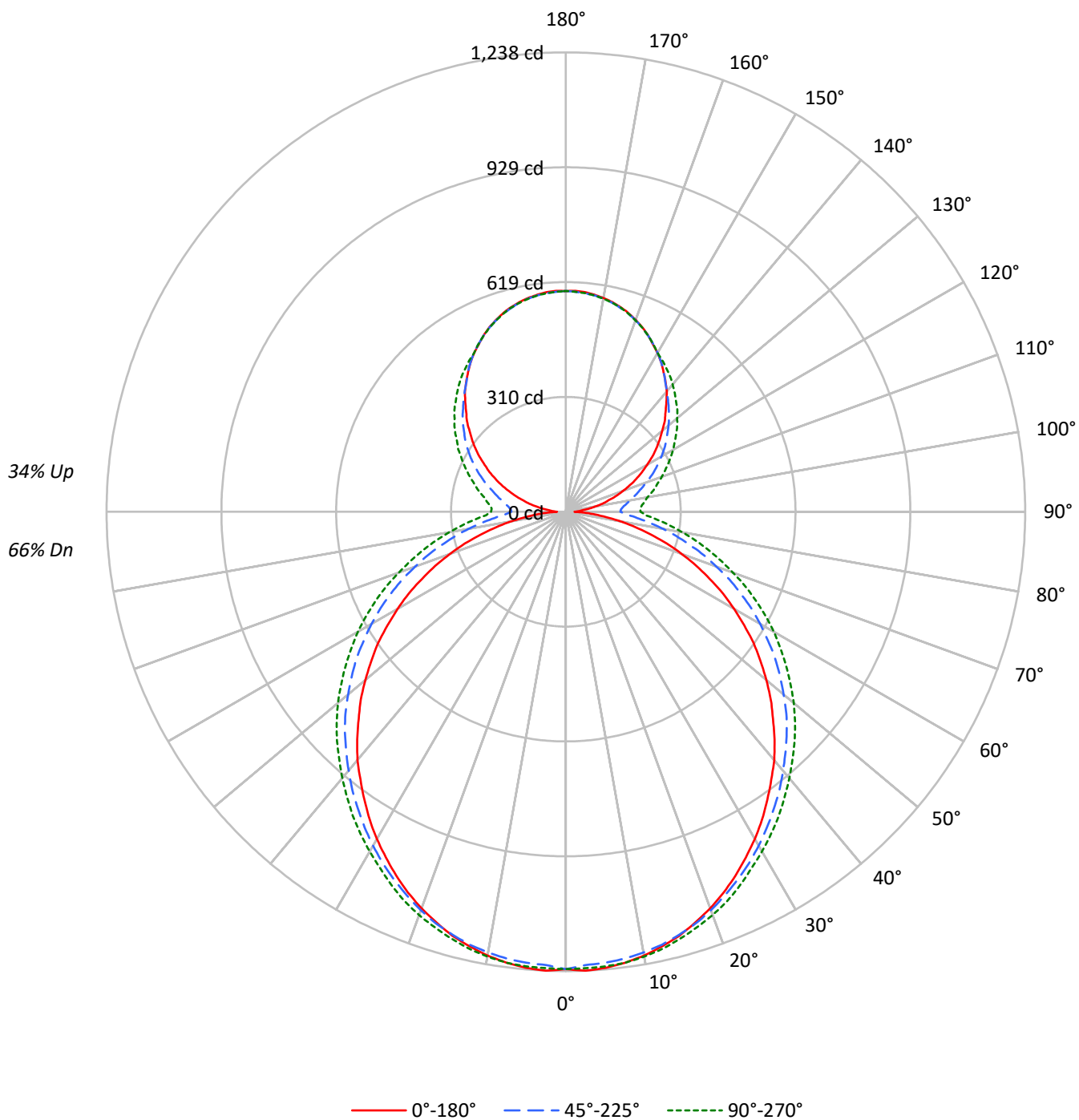
Lumens per Lamp: N/A
Luminaire Lumens: 5854.0 lumens
Efficiency: N/A
Efficacy: 97.6 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 60
Input Voltage (V):
Input Current (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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	111	111	111	111	105	105	105	105	92	92	92	81	81	81	71	71	71			66
1	100	95	91	87	94	90	86	82	79	76	73	70	67	65	61	59	57			53
2	91	82	75	70	85	78	71	66	69	64	60	60	57	53	53	50	47			43
3	82	72	64	57	77	68	61	55	60	54	50	53	48	45	46	43	40			36
4	75	63	55	48	70	60	52	46	53	47	42	47	42	38	41	37	34			31
5	69	56	48	41	64	53	45	39	47	41	36	42	37	33	37	33	29			26
6	63	51	42	36	59	48	40	34	43	36	31	38	32	28	33	29	26			23
7	59	46	37	31	55	43	35	30	39	32	27	34	29	25	30	26	23			20
8	54	41	33	28	51	39	32	26	35	29	24	31	26	22	28	23	20			18
9	51	38	30	25	48	36	29	24	32	26	22	29	24	20	26	21	18			16
10	47	35	27	22	45	33	26	21	30	24	20	27	22	18	24	20	16			15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10050	10050	10050
5°	10078	9788	9806
10°	10012	9595	9568
15°	9919	9379	9300
20°	9779	9145	9040
25°	9623	8887	8759
30°	9454	8630	8472
35°	9263	8368	8217
40°	9108	8117	7953
45°	8881	7881	7720
50°	8689	7613	7474
55°	8487	7355	7190
60°	8177	7033	6923
65°	7834	6686	6602
70°	7420	6291	6231
75°	6841	5850	5877
80°	6186	5403	5507
85°	5319	4951	5207

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 8881 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.8	2.0
10°-20°	334.6	5.7
20°-30°	505.9	8.6
30°-40°	612.0	10.5
40°-50°	647.0	11.1
50°-60°	608.9	10.4
60°-70°	505.3	8.6
70°-80°	354.6	6.1
80°-90°	201.2	3.4
90°-100°	157.8	2.7
100°-110°	204.3	3.5
110°-120°	256.5	4.4
120°-130°	293.5	5.0
130°-140°	306.7	5.2
140°-150°	290.1	5.0
150°-160°	241.6	4.1
160°-170°	160.8	2.7
170°-180°	56.3	1.0
0°-30°	957.3	16.4
0°-40°	1569.3	26.8
0°-60°	2825.3	48.3
0°-90°	3886.4	66.4
90°-120°	618.6	10.6
90°-150°	1508.9	25.8
90°-180°	1968.0	33.6
0°-180°	5854.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1232	1232	1232	1232	1232	
5°	1234	1230	1220	1231	1230	117
15°	1183	1184	1180	1192	1191	333
25°	1082	1090	1094	1110	1111	498
35°	947	963	977	996	1001	593
45°	789	816	842	865	872	610
55°	618	647	689	716	725	551
65°	428	472	519	553	564	424
75°	237	288	346	385	398	252
85°	73	131	193	235	248	76
90°	24	84	147	190	202	17
95°	46	95	155	194	206	44
105°	120	148	201	236	249	128
115°	209	221	265	294	304	207
125°	298	296	330	356	363	266
135°	380	382	392	413	420	294
145°	459	460	460	468	472	288
155°	524	524	524	526	524	241
165°	571	570	569	572	570	161
175°	594	592	591	594	591	56
180°	595	595	595	595	595	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1232.5	1232.5	1232.5	1232.5	1232.5
2.5°	1238.0	1233.9	1222.8	1232.5	1231.1
5°	1233.9	1229.7	1220.0	1231.1	1229.7
7.5°	1225.6	1222.8	1214.5	1227.0	1225.6
10°	1214.5	1213.1	1206.2	1218.7	1217.3
12.5°	1199.3	1199.3	1195.2	1206.2	1206.2
15°	1182.8	1184.2	1180.0	1192.4	1191.1
17.5°	1160.7	1164.8	1163.5	1175.9	1174.5
20°	1137.2	1141.4	1142.8	1156.6	1156.6
22.5°	1111.0	1116.5	1119.3	1133.1	1135.9
25°	1082.0	1090.3	1094.5	1109.6	1111.0
27.5°	1050.3	1062.7	1068.2	1082.0	1083.4
30°	1018.5	1029.6	1039.3	1054.4	1057.2
32.5°	984.0	997.8	1008.9	1026.8	1029.6
35°	946.8	963.3	977.1	996.5	1000.6
37.5°	909.5	928.8	945.4	964.7	968.9
40°	873.6	891.6	910.9	931.6	937.1
42.5°	832.2	852.9	876.4	899.9	904.0
45°	789.4	815.7	841.9	865.4	872.3
47.5°	749.4	775.6	806.0	829.5	837.7
50°	705.3	735.6	766.0	793.6	801.9
52.5°	661.1	691.5	727.3	754.9	763.2
55°	618.3	647.3	688.7	716.3	724.6
57.5°	570.0	605.9	645.9	679.0	685.9
60°	523.1	559.0	604.5	636.2	647.3
62.5°	477.5	517.6	563.1	594.8	605.9
65°	427.8	472.0	518.9	553.4	564.5
67.5°	380.9	427.8	477.5	512.0	523.1
70°	332.6	379.5	432.0	469.2	478.9
72.5°	285.7	334.0	390.6	426.5	437.5
75°	237.4	288.5	346.4	385.1	397.5
77.5°	191.8	245.7	306.4	345.0	358.8
80°	150.4	205.6	266.4	307.8	318.8
82.5°	109.0	167.0	227.7	270.5	282.9
85°	73.1	131.1	193.2	234.6	248.4
87.5°	45.5	102.1	162.9	202.9	215.3
90°	23.5	83.7	146.7	189.6	201.5
92.5°	32.7	86.9	148.6	188.6	200.1
95°	45.5	95.2	155.1	193.6	206.1
97.5°	60.8	104.5	164.7	202.5	214.9
100°	79.6	117.4	175.3	213.5	223.1
102.5°	100.8	131.5	187.7	225.0	236.5
105°	119.6	147.7	200.6	236.5	248.9
107.5°	142.2	166.1	214.9	251.2	260.5
110°	163.8	184.1	231.9	262.7	275.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	186.4	202.9	247.6	277.9	289.0
115°	208.9	221.3	264.6	294.4	303.7
117.5°	231.5	239.8	280.7	308.2	317.9
120°	252.6	258.5	297.3	322.6	334.5
122.5°	276.1	276.5	313.4	339.6	346.9
125°	297.7	296.3	330.3	355.7	363.0
127.5°	318.4	318.4	345.0	369.0	378.2
130°	339.1	339.1	361.1	385.1	391.6
132.5°	361.6	361.2	377.3	399.9	407.7
135°	379.6	382.4	392.0	413.2	420.1
137.5°	401.3	401.2	407.7	427.0	434.3
140°	422.9	422.4	423.8	441.3	447.7
142.5°	441.3	442.2	440.3	455.5	461.0
145°	459.2	459.7	460.1	468.0	472.1
147.5°	477.6	478.5	478.1	479.0	484.0
150°	494.2	494.6	494.6	494.6	494.2
152.5°	508.4	509.4	509.8	511.2	509.8
155°	524.5	524.5	524.1	525.9	524.1
157.5°	538.3	537.4	537.4	538.8	537.4
160°	550.3	549.8	549.4	550.8	548.5
162.5°	561.3	560.0	559.5	562.3	560.0
165°	571.0	569.6	568.7	571.5	569.6
167.5°	578.8	577.0	577.0	579.8	577.0
170°	585.3	583.0	583.4	586.2	583.0
172.5°	589.9	588.0	588.0	591.3	588.0
175°	594.0	591.7	591.3	594.5	591.3
177.5°	595.9	593.6	593.6	596.8	593.1
180°	594.9	594.9	594.9	594.9	594.9

(END OF REPORT)