

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: P1033220

Luminaire Tested: S124DIW-B1020D770UB35-4F0-XX-W2A-D

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033220
REPORT IS A COMBINATION OF REPORTS P996925 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D770UB35-4F0-XX-W2A-D
Description: Define 4 Direct/Indirect Wall Mount with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

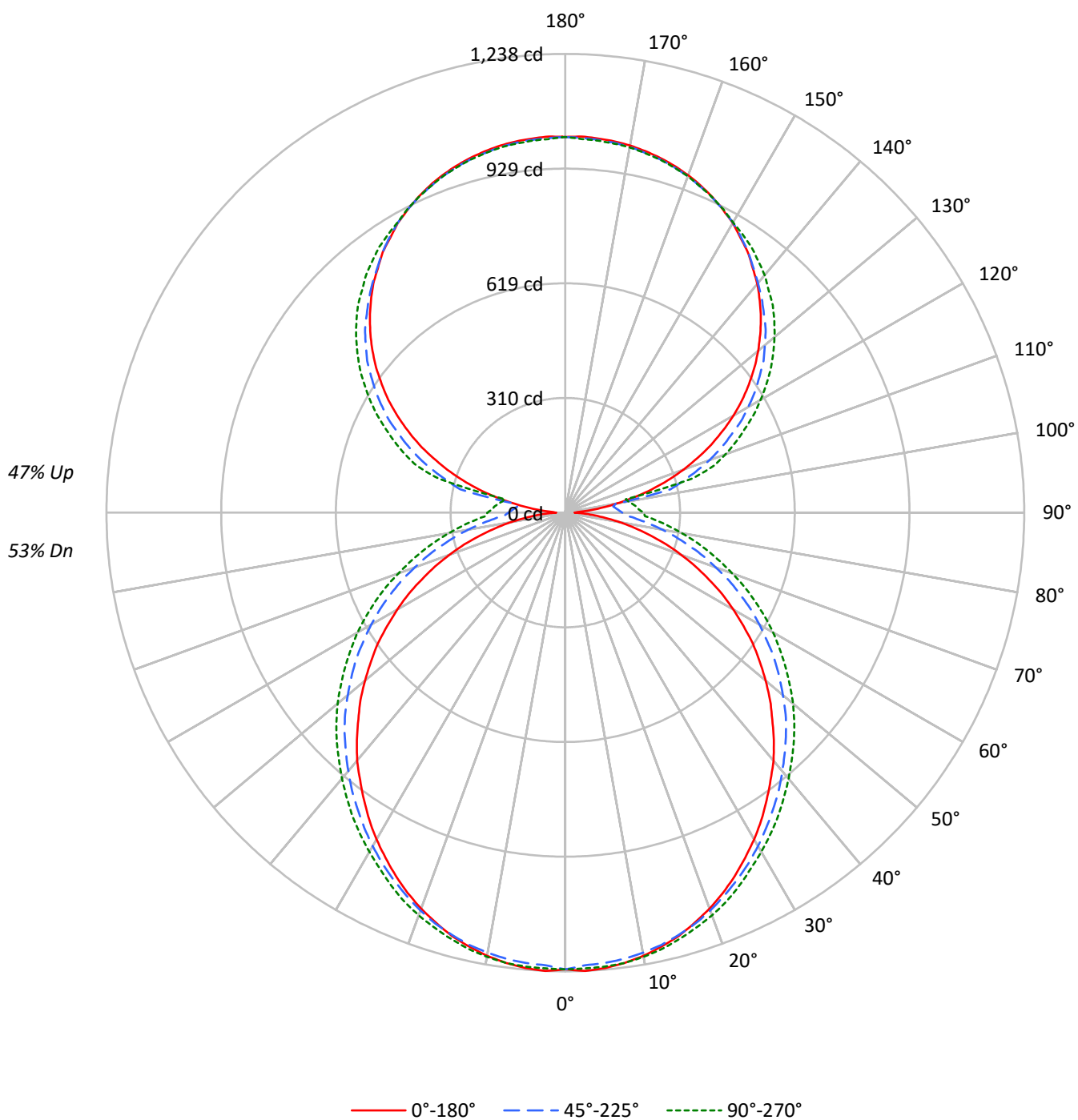
Lumens per Lamp: N/A
Luminaire Lumens: 7341.0 lumens
Efficiency: N/A
Efficacy: 104.9 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 70
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
RCR																	
0	108	108	108	108	100	100	100	100	85	85	85		71	71	71		59
1	97	93	88	84	90	86	82	79	73	70	68		61	59	57		50
2	88	80	74	68	81	74	69	64	63	59	55		53	50	47		44
3	80	70	62	56	74	65	58	53	55	50	46		47	43	39		38
4	73	62	53	47	67	57	50	44	49	43	39		41	37	33		34
5	67	55	46	40	62	51	43	38	44	38	33		37	32	29		30
6	62	49	41	35	57	46	38	33	39	33	29		33	29	25		28
7	57	44	36	30	53	41	34	29	36	30	25		30	25	22		25
8	53	40	32	27	49	37	30	25	32	27	22		28	23	19		23
9	49	37	29	24	45	34	27	22	30	24	20		25	21	17		21
10	46	34	26	21	42	31	25	20	27	22	18		23	19	16		20

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	1.6
10°-20°	334.6	4.6
20°-30°	505.9	6.9
30°-40°	612.0	8.3
40°-50°	647.0	8.8
50°-60°	608.9	8.3
60°-70°	505.3	6.9
70°-80°	354.6	4.8
80°-90°	202.0	2.8
90°-100°	152.7	2.1
100°-110°	309.8	4.2
110°-120°	482.3	6.6
120°-130°	570.5	7.8
130°-140°	589.1	8.0
140°-150°	540.2	7.4
150°-160°	433.4	5.9
160°-170°	279.5	3.8
170°-180°	96.3	1.3
0°-30°	957.3	13.0
0°-40°	1569.3	21.4
0°-60°	2825.3	38.5
0°-90°	3887.2	53.0
90°-120°	944.8	12.9
90°-150°	2644.6	36.0
90°-180°	3454.0	47.1
0°-180°	7341.0	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	88	153	198	210	17
95°	60	79	137	178	192	66
105°	241	273	328	369	353	253
115°	434	449	492	524	534	428
125°	604	606	639	668	677	540
135°	746	745	758	781	791	575
145°	858	859	859	868	875	536
155°	939	940	938	941	939	433
165°	991	987	987	993	986	280
175°	1014	1009	1010	1017	1008	97
180°	1014	1014	1014	1014	1014	

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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°	24.4	87.9	153.3	197.9	210.4
92.5°	32.1	78.9	144.3	187.5	198.5
95°	59.6	79.4	136.8	178.5	191.8
97.5°	96.2	152.9	129.9	169.6	182.7
100°	139.5	189.1	138.3	162.7	173.0
102.5°	189.6	229.0	290.6	155.9	166.9
105°	240.6	272.8	327.7	369.0	352.7
107.5°	289.9	315.7	369.3	407.6	420.3
110°	338.6	360.2	413.1	446.3	459.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	385.8	406.8	453.9	483.5	497.6
115°	434.4	449.1	492.5	524.4	534.1
117.5°	479.2	490.5	534.2	562.3	573.4
120°	523.3	530.4	569.7	598.8	608.3
122.5°	565.7	567.2	606.0	634.4	642.5
125°	604.5	606.1	639.1	667.7	676.7
127.5°	643.2	642.5	673.9	698.1	706.9
130°	678.9	678.4	702.7	728.3	736.6
132.5°	713.0	713.3	732.8	757.1	764.6
135°	745.9	745.1	757.7	781.4	791.2
137.5°	776.2	774.8	784.1	806.3	812.4
140°	805.8	805.9	808.8	829.0	836.6
142.5°	830.9	833.9	833.3	850.0	855.5
145°	858.2	859.1	859.1	868.1	875.1
147.5°	879.4	882.6	881.8	884.0	890.2
150°	902.9	904.6	903.8	903.8	904.6
152.5°	921.2	923.5	922.0	923.5	922.8
155°	939.4	940.2	937.9	941.0	938.7
157.5°	955.4	955.4	952.3	956.1	952.3
160°	969.0	966.7	966.0	970.5	966.0
162.5°	981.1	978.1	977.4	981.9	976.6
165°	991.0	987.2	987.2	993.3	986.5
167.5°	999.3	995.6	994.8	1001.6	994.0
170°	1006.2	1001.6	1002.4	1008.4	1000.9
172.5°	1010.7	1006.2	1006.9	1013.0	1004.7
175°	1013.8	1009.2	1010.0	1016.8	1007.7
177.5°	1016.0	1010.7	1012.2	1018.3	1009.2
180°	1013.8	1013.8	1013.8	1013.8	1013.8

(END OF REPORT)