

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: P1033222

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

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033222
REPORT IS A COMBINATION OF REPORTS P996928 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-F
Description: Define 4 Direct/Indirect Wall Mount with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

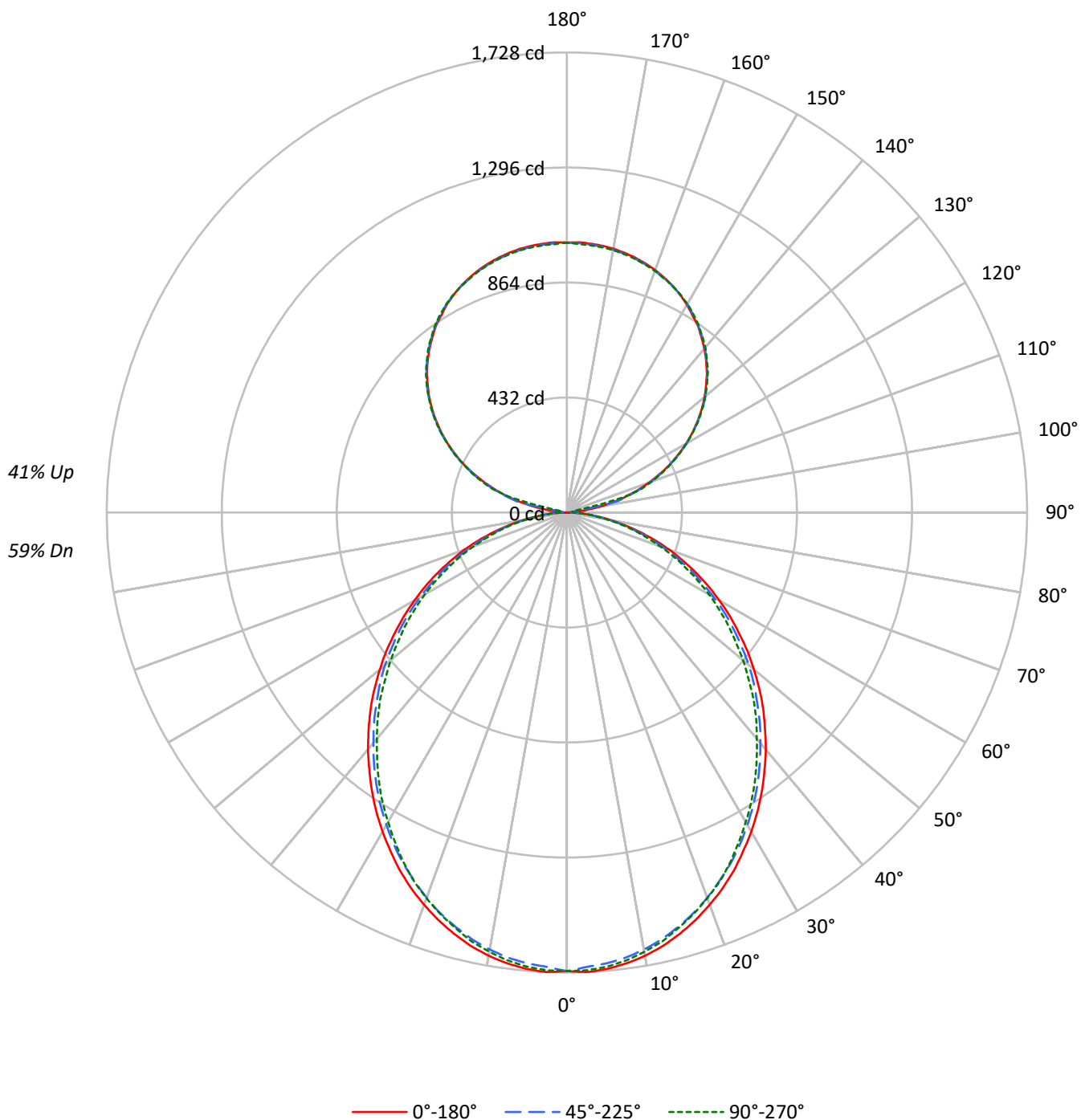
Lumens per Lamp: N/A
Luminaire Lumens: 7560.0 lumens
Efficiency: N/A
Efficacy: 108.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

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	30	10
RCR																	
0	109	109	109	109	102	102	102	102	88	88	88	75	75	75	64	64	64
1	100	95	91	88	93	89	86	82	77	75	72	66	65	63	56	55	54
2	91	83	77	72	84	78	72	68	68	63	60	58	55	52	50	47	45
3	83	73	66	60	77	68	62	57	60	55	50	52	48	44	44	41	39
4	76	65	57	51	70	61	54	48	53	47	43	46	42	38	39	36	33
5	70	58	49	43	65	54	47	41	48	42	37	41	37	33	35	32	29
6	64	52	44	38	60	49	41	36	43	37	32	37	33	29	32	28	26
7	59	47	39	33	55	44	37	32	39	33	29	34	29	26	29	26	23
8	55	43	35	29	51	40	33	28	36	30	25	31	26	23	27	23	20
9	51	39	31	26	48	37	30	25	33	27	23	29	24	21	25	21	18
10	48	36	28	24	45	34	27	23	30	24	21	27	22	19	23	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14045	14045	14045
5°	14058	13642	13658
10°	13938	13262	13170
15°	13739	12812	12620
20°	13483	12326	12049
25°	13196	11811	11436
30°	12849	11254	10762
35°	12491	10685	10110
40°	12116	10073	9418
45°	11723	9457	8771
50°	11289	8861	8053
55°	10818	8165	7341
60°	10334	7403	6598
65°	9781	6615	5762
70°	9145	5668	4866
75°	8193	4568	3897
80°	6984	3304	2741
85°	5421	1840	1476

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11723 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.3	2.1
10°-20°	457.4	6.1
20°-30°	673.1	8.9
30°-40°	782.5	10.4
40°-50°	782.4	10.3
50°-60°	684.3	9.1
60°-70°	508.0	6.7
70°-80°	288.3	3.8
80°-90°	84.6	1.1
90°-100°	33.7	0.4
100°-110°	221.6	2.9
110°-120°	423.2	5.6
120°-130°	537.2	7.1
130°-140°	574.7	7.6
140°-150°	537.4	7.1
150°-160°	433.4	5.7
160°-170°	279.5	3.7
170°-180°	96.3	1.3
0°-30°	1292.9	17.1
0°-40°	2075.4	27.5
0°-60°	3542.1	46.9
0°-90°	4423.1	58.5
90°-120°	678.5	9.0
90°-150°	2327.8	30.8
90°-180°	3137.0	41.5
0°-180°	7560.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1722	1722	1722	1722	1722	
5°	1721	1716	1700	1716	1713	163
15°	1638	1633	1612	1620	1616	462
25°	1484	1474	1455	1456	1451	683
35°	1277	1267	1248	1238	1231	798
45°	1042	1032	1010	995	991	803
55°	788	784	765	748	740	706
65°	534	527	513	500	493	529
75°	284	277	270	265	264	302
85°	74	74	72	72	70	80
90°	2	11	17	21	23	7
95°	42	16	17	21	22	51
105°	228	233	237	243	216	239
115°	426	428	428	429	429	419
125°	599	602	600	603	604	535
135°	743	742	745	747	748	573
145°	857	859	859	860	861	535
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°	1722.4	1722.4	1722.4	1722.4	1722.4
2.5°	1728.0	1723.8	1708.6	1722.4	1721.1
5°	1721.1	1715.5	1700.4	1715.5	1712.8
7.5°	1708.6	1703.1	1686.6	1699.0	1697.6
10°	1690.7	1685.2	1667.2	1678.3	1675.5
12.5°	1667.2	1661.7	1642.4	1654.8	1650.7
15°	1638.3	1632.7	1612.0	1620.3	1616.2
17.5°	1605.1	1598.2	1578.9	1584.4	1581.7
20°	1567.9	1561.0	1540.3	1544.4	1541.6
22.5°	1527.8	1518.2	1497.5	1505.8	1500.2
25°	1483.7	1474.0	1454.7	1456.1	1450.6
27.5°	1434.0	1424.3	1406.4	1403.6	1396.7
30°	1384.3	1373.3	1355.3	1349.8	1342.9
32.5°	1331.9	1322.2	1302.9	1296.0	1289.1
35°	1276.7	1267.0	1247.7	1238.0	1231.1
37.5°	1218.7	1210.4	1189.7	1180.0	1170.4
40°	1162.1	1151.1	1130.4	1116.6	1109.7
42.5°	1101.4	1095.9	1072.4	1055.8	1051.7
45°	1042.0	1032.4	1010.3	995.1	991.0
47.5°	979.9	973.0	952.3	935.8	924.7
50°	916.4	910.9	891.6	872.3	864.0
52.5°	854.3	847.4	826.7	810.2	799.1
55°	788.1	783.9	764.6	748.1	739.8
57.5°	726.0	721.8	702.5	685.9	677.7
60°	661.1	654.2	636.3	623.8	616.9
62.5°	597.6	592.1	572.8	561.7	554.8
65°	534.1	527.2	513.4	499.6	492.7
67.5°	469.3	463.7	449.9	436.1	434.8
70°	409.9	400.2	389.2	378.2	374.0
72.5°	346.4	336.8	328.5	320.2	316.1
75°	284.3	277.4	270.5	265.0	263.6
77.5°	223.6	220.8	213.9	212.5	208.4
80°	169.8	165.6	162.9	160.1	158.7
82.5°	117.3	115.9	115.9	114.6	113.2
85°	74.5	74.5	71.8	71.8	70.4
87.5°	35.9	34.5	33.1	33.1	33.1
90°	2.3	10.6	16.7	21.2	22.7
92.5°	11.4	9.9	15.9	20.5	20.5
95°	41.7	15.9	16.7	21.2	22.0
97.5°	79.6	96.3	16.7	20.5	21.2
100°	124.3	138.0	33.4	20.5	21.2
102.5°	174.4	183.5	192.6	22.0	22.0
105°	228.2	232.8	236.6	243.4	216.1
107.5°	277.5	279.8	285.1	288.9	291.9
110°	327.6	329.8	334.4	335.9	338.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	376.1	380.6	382.1	381.4	384.4
115°	426.1	428.4	427.6	429.2	429.2
117.5°	470.9	473.9	476.2	475.4	475.4
120°	516.4	519.4	518.6	520.1	518.6
122.5°	558.8	560.3	561.8	562.6	561.1
125°	599.0	602.0	600.5	602.8	603.6
127.5°	637.7	638.4	642.2	641.5	640.7
130°	674.8	675.6	677.9	678.6	678.6
132.5°	708.9	710.5	713.5	714.3	713.5
135°	743.1	742.3	745.3	746.9	748.4
137.5°	773.4	773.4	777.2	778.7	777.9
140°	803.0	804.5	806.0	808.3	809.0
142.5°	829.5	832.5	833.3	834.8	834.8
145°	856.8	859.1	859.1	859.8	861.3
147.5°	878.0	882.6	881.8	882.6	883.3
150°	901.5	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)