

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: P1033223

Luminaire Tested: S124DIW-B1020D770UB35-4F0-XX-W2A-F1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033223
REPORT IS A COMBINATION OF REPORTS P996929 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D770UB35-4F0-XX-W2A-F1
Description: Define 4 Direct/Indirect Wall Mount with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

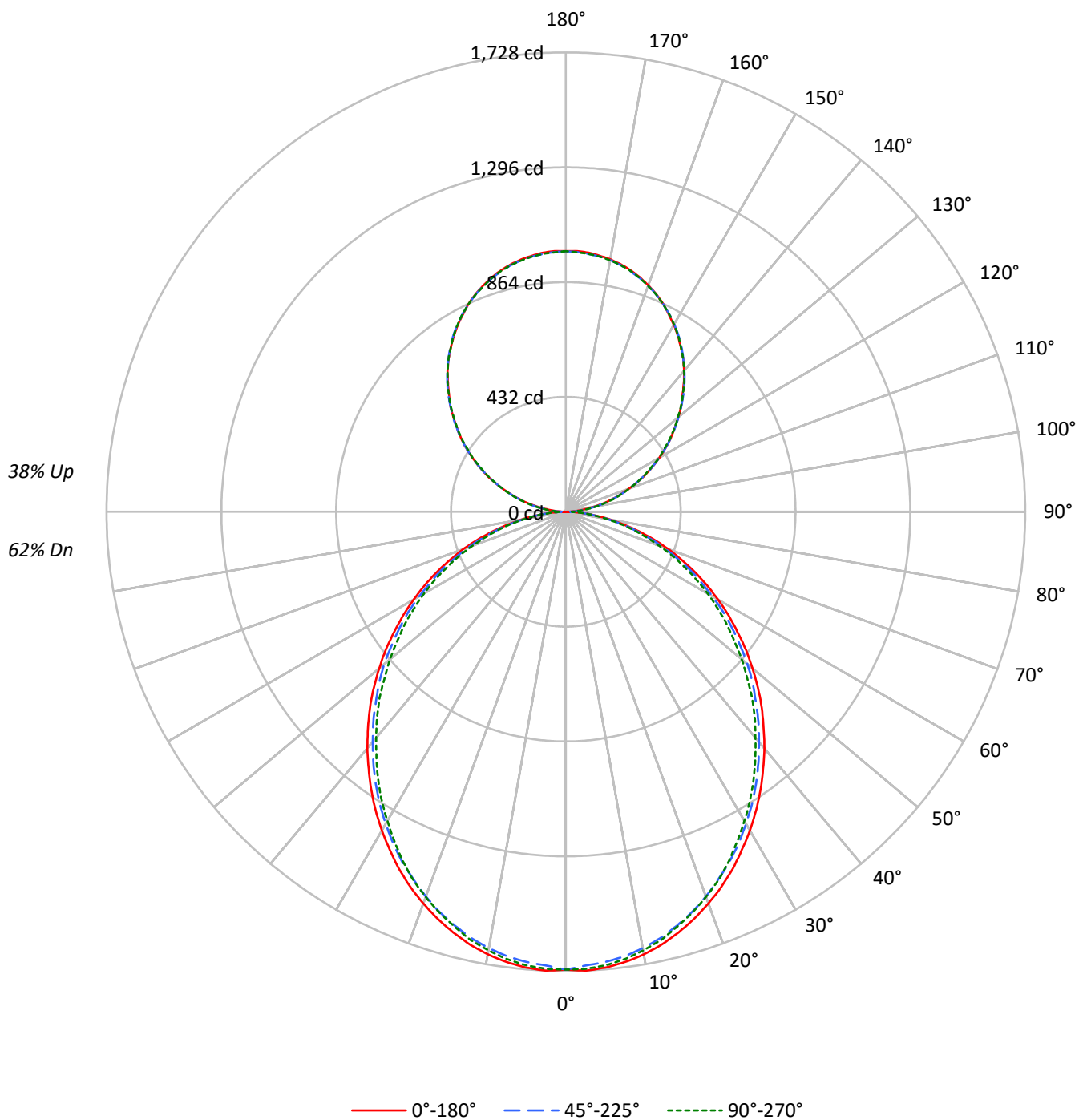
Lumens per Lamp: N/A
Luminaire Lumens: 7143.0 lumens
Efficiency: N/A
Efficacy: 102.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67
1	100	96	92	88	94	90	87	83	79	76	74	69	67	65	59	58	57
2	91	84	78	72	85	79	73	68	69	65	61	60	57	54	52	50	48
3	83	74	66	60	78	69	63	57	61	56	51	53	49	46	46	43	41
4	76	65	57	51	71	61	54	49	54	48	44	48	43	39	41	38	35
5	70	58	50	44	65	55	47	42	49	43	38	43	38	34	37	33	30
6	65	52	44	38	60	49	42	36	44	38	33	39	34	30	34	30	27
7	60	47	39	33	56	45	37	32	40	34	29	35	30	27	31	27	24
8	56	43	35	30	52	41	34	28	36	30	26	32	27	24	28	24	21
9	52	39	32	27	49	37	30	26	33	28	23	30	25	21	26	22	19
10	48	36	29	24	45	34	28	23	31	25	21	27	23	19	24	20	18

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	2.3
10°-20°	457.4	6.4
20°-30°	673.1	9.4
30°-40°	782.5	11.0
40°-50°	782.4	11.0
50°-60°	684.3	9.6
60°-70°	508.0	7.1
70°-80°	288.3	4.0
80°-90°	84.6	1.2
90°-100°	63.9	0.9
100°-110°	191.4	2.7
110°-120°	325.1	4.6
120°-130°	428.8	6.0
130°-140°	481.6	6.7
140°-150°	473.3	6.6
150°-160°	398.1	5.6
160°-170°	264.9	3.7
170°-180°	92.8	1.3
0°-30°	1292.9	18.1
0°-40°	2075.4	29.1
0°-60°	3542.1	49.6
0°-90°	4423.1	61.9
90°-120°	580.4	8.1
90°-150°	1964.1	27.5
90°-180°	2720.0	38.1
0°-180°	7143.0	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	8
95°	46	52	58	60	60	49
105°	177	177	180	183	185	187
115°	330	330	329	328	328	326
125°	481	481	481	479	478	429
135°	621	626	626	624	622	480
145°	754	757	758	757	755	472
155°	864	864	864	867	864	398
165°	941	939	937	942	939	265
175°	979	975	974	980	974	93
180°	980	980	980	980	980	

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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°	19.7	29.6	33.4	35.6	36.4
95°	45.5	52.3	57.6	59.9	59.9
97.5°	72.8	78.8	84.9	87.9	87.9
100°	106.1	109.2	116.0	117.5	117.5
102.5°	141.0	141.8	147.8	150.1	150.9
105°	176.6	177.4	180.4	182.7	185.0
107.5°	213.8	214.6	215.3	218.3	217.6
110°	251.7	253.2	252.5	250.9	253.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	291.1	291.1	289.6	289.6	289.6
115°	330.5	330.5	329.0	328.3	327.5
117.5°	367.7	367.7	366.9	364.7	362.4
120°	404.8	407.9	405.6	401.8	403.3
122.5°	443.5	444.3	443.5	441.2	437.4
125°	481.4	481.4	480.7	479.1	477.6
127.5°	515.5	517.8	516.3	514.8	514.0
130°	551.9	554.2	554.2	552.7	549.7
132.5°	589.1	590.6	589.8	588.3	587.6
135°	620.9	625.5	625.5	623.9	621.7
137.5°	656.5	658.8	660.3	658.1	658.8
140°	692.2	693.7	693.7	692.9	692.2
142.5°	724.8	726.3	725.5	725.5	725.5
145°	754.3	757.4	758.1	757.4	755.1
147.5°	784.7	788.5	787.7	786.9	786.2
150°	812.0	815.0	815.0	815.0	814.2
152.5°	837.7	839.3	840.0	842.3	840.0
155°	864.3	864.3	863.5	866.6	863.5
157.5°	887.0	885.5	885.5	887.8	885.5
160°	906.7	906.0	905.2	907.5	903.7
162.5°	924.9	922.7	921.9	926.4	922.7
165°	940.9	938.6	937.1	941.6	938.6
167.5°	953.7	950.7	950.7	955.3	950.7
170°	964.4	960.6	961.3	965.9	960.6
172.5°	971.9	968.9	968.9	974.2	968.9
175°	978.8	975.0	974.2	979.5	974.2
177.5°	981.8	978.0	978.0	983.3	977.2
180°	980.3	980.3	980.3	980.3	980.3

(END OF REPORT)