

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: P1033210

Luminaire Tested: S124DIW-B1020D770UB27-4F0-XX-W2A-F

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033210
REPORT IS A COMBINATION OF REPORTS P996889 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D770UB27-4F0-XX-W2A-F
Description: Define 4 Direct/Indirect Wall Mount with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

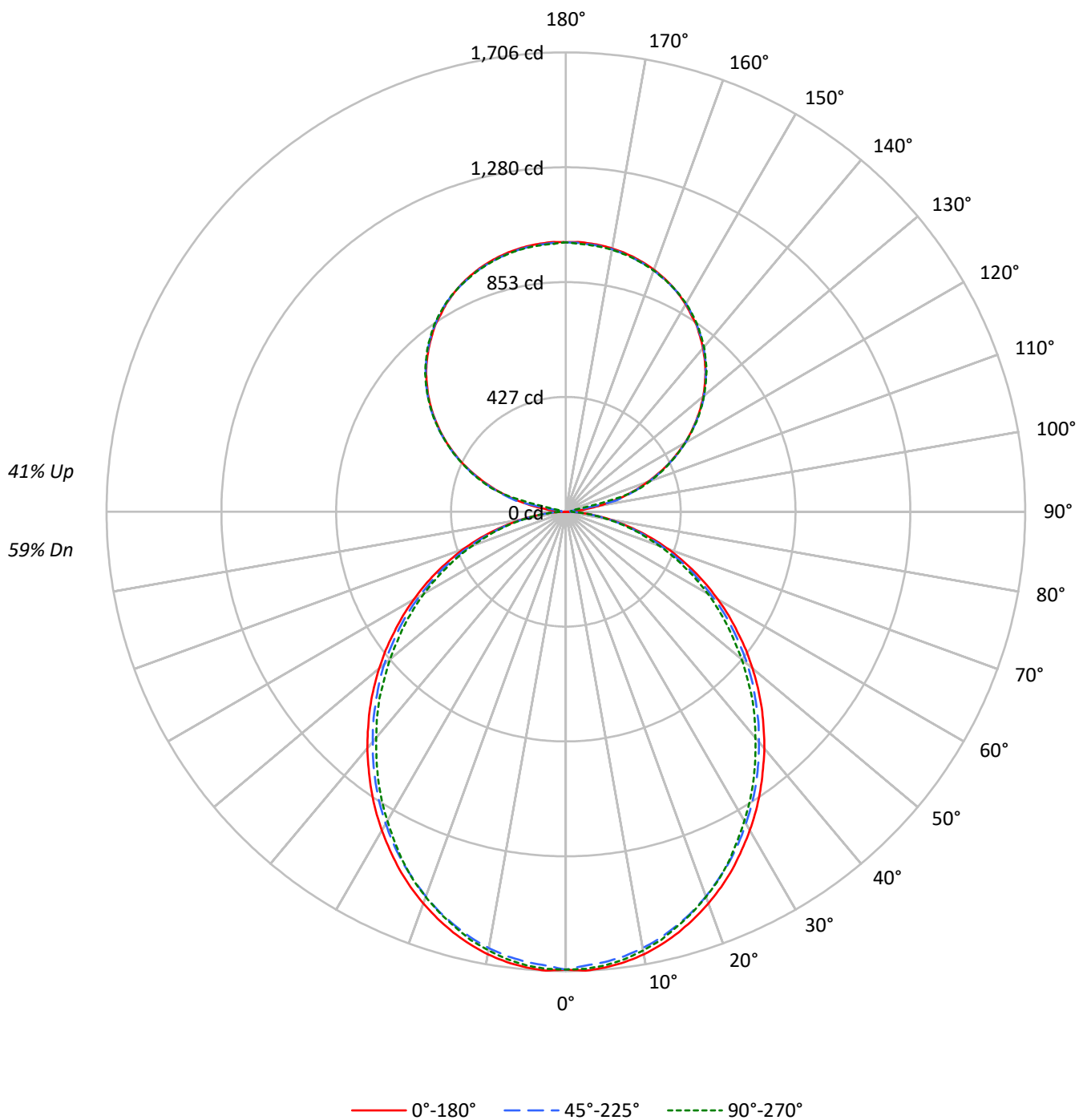
Lumens per Lamp: N/A
Luminaire Lumens: 7463.0 lumens
Efficiency: N/A
Efficacy: 106.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 70
Input Voltage (V):
Input Current (A_{in}): 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°	13864	13864	13864
5°	13876	13466	13482
10°	13758	13091	13000
15°	13561	12648	12456
20°	13310	12167	11894
25°	13026	11658	11288
30°	12684	11109	10623
35°	12329	10547	9980
40°	11960	9942	9296
45°	11573	9336	8657
50°	11144	8747	7948
55°	10678	8061	7246
60°	10201	7308	6513
65°	9655	6530	5688
70°	9027	5595	4803
75°	8086	4509	3847
80°	6893	3261	2707
85°	5356	1814	1457

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11573 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.3	2.1
10°-20°	451.5	6.0
20°-30°	664.5	8.9
30°-40°	772.4	10.3
40°-50°	772.3	10.3
50°-60°	675.5	9.1
60°-70°	501.5	6.7
70°-80°	284.5	3.8
80°-90°	83.6	1.1
90°-100°	33.2	0.4
100°-110°	218.8	2.9
110°-120°	417.8	5.6
120°-130°	530.4	7.1
130°-140°	567.4	7.6
140°-150°	530.5	7.1
150°-160°	427.8	5.7
160°-170°	275.9	3.7
170°-180°	95.1	1.3
0°-30°	1276.2	17.1
0°-40°	2048.6	27.5
0°-60°	3496.5	46.9
0°-90°	4366.1	58.5
90°-120°	669.8	9.0
90°-150°	2298.1	30.8
90°-180°	3097.0	41.5
0°-180°	7463.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1700	1700	1700	1700	1700	
5°	1699	1693	1678	1693	1691	161
15°	1617	1612	1591	1599	1595	456
25°	1465	1455	1436	1437	1432	674
35°	1260	1251	1232	1222	1215	788
45°	1029	1019	997	982	978	793
55°	778	774	755	738	730	697
65°	527	520	507	493	486	522
75°	281	274	267	262	260	298
85°	74	74	71	71	70	79
90°	2	10	16	21	22	7
95°	41	16	16	21	22	51
105°	225	230	234	240	213	236
115°	421	423	422	424	424	414
125°	591	594	593	595	596	528
135°	734	733	736	737	739	565
145°	846	848	848	849	850	529
155°	928	928	926	929	927	428
165°	978	975	975	981	974	276
175°	1001	996	997	1004	995	95
180°	1001	1001	1001	1001	1001	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1700.2	1700.2	1700.2	1700.2	1700.2
2.5°	1705.7	1701.6	1686.6	1700.2	1698.9
5°	1698.9	1693.4	1678.4	1693.4	1690.7
7.5°	1686.6	1681.2	1664.8	1677.1	1675.7
10°	1668.9	1663.5	1645.7	1656.6	1653.9
12.5°	1645.7	1640.3	1621.2	1633.5	1629.4
15°	1617.1	1611.7	1591.3	1599.4	1595.3
17.5°	1584.4	1577.6	1558.6	1564.0	1561.3
20°	1547.7	1540.8	1520.4	1524.5	1521.8
22.5°	1508.1	1498.6	1478.2	1486.3	1480.9
25°	1464.6	1455.0	1435.9	1437.3	1431.9
27.5°	1415.5	1406.0	1388.3	1385.5	1378.7
30°	1366.5	1355.6	1337.8	1332.4	1325.6
32.5°	1314.7	1305.2	1286.1	1279.3	1272.5
35°	1260.2	1250.7	1231.6	1222.0	1215.2
37.5°	1203.0	1194.8	1174.4	1164.8	1155.3
40°	1147.1	1136.2	1115.8	1102.2	1095.3
42.5°	1087.2	1081.7	1058.6	1042.2	1038.1
45°	1028.6	1019.1	997.3	982.3	978.2
47.5°	967.3	960.5	940.0	923.7	912.8
50°	904.6	899.2	880.1	861.0	852.8
52.5°	843.3	836.5	816.1	799.7	788.8
55°	777.9	773.8	754.8	738.4	730.2
57.5°	716.6	712.5	693.4	677.1	668.9
60°	652.6	645.8	628.1	615.8	609.0
62.5°	589.9	584.5	565.4	554.5	547.7
65°	527.2	520.4	506.8	493.2	486.4
67.5°	463.2	457.8	444.1	430.5	429.1
70°	404.6	395.1	384.2	373.3	369.2
72.5°	342.0	332.4	324.2	316.1	312.0
75°	280.6	273.8	267.0	261.6	260.2
77.5°	220.7	218.0	211.2	209.8	205.7
80°	167.6	163.5	160.8	158.0	156.7
82.5°	115.8	114.4	114.4	113.1	111.7
85°	73.6	73.6	70.8	70.8	69.5
87.5°	35.4	34.1	32.7	32.7	32.7
90°	2.2	10.5	16.5	21.0	22.5
92.5°	11.2	9.7	15.7	20.2	20.2
95°	41.2	15.7	16.5	21.0	21.7
97.5°	78.6	95.1	16.5	20.2	21.0
100°	122.8	136.2	32.9	20.2	21.0
102.5°	172.2	181.2	190.1	21.7	21.7
105°	225.3	229.8	233.6	240.3	213.3
107.5°	274.0	276.2	281.5	285.2	288.2
110°	323.4	325.6	330.1	331.6	333.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	371.3	375.8	377.3	376.5	379.5
115°	420.7	422.9	422.2	423.7	423.7
117.5°	464.9	467.9	470.1	469.4	469.4
120°	509.8	512.8	512.0	513.5	512.0
122.5°	551.7	553.2	554.7	555.4	553.9
125°	591.4	594.4	592.9	595.1	595.9
127.5°	629.5	630.3	634.0	633.3	632.5
130°	666.2	667.0	669.2	670.0	670.0
132.5°	699.9	701.4	704.4	705.2	704.4
135°	733.6	732.8	735.8	737.3	738.8
137.5°	763.5	763.5	767.3	768.8	768.0
140°	792.7	794.2	795.7	798.0	798.7
142.5°	818.9	821.9	822.7	824.2	824.2
145°	845.9	848.1	848.1	848.9	850.4
147.5°	866.8	871.3	870.6	871.3	872.1
150°	890.0	893.0	892.3	892.3	893.0
152.5°	909.5	911.8	910.3	911.8	911.0
155°	927.5	928.2	926.0	929.0	926.7
157.5°	943.2	943.2	940.2	943.9	940.2
160°	956.7	954.4	953.7	958.2	953.7
162.5°	968.6	965.7	964.9	969.4	964.2
165°	978.4	974.6	974.6	980.6	973.9
167.5°	986.6	982.9	982.1	988.9	981.4
170°	993.3	988.9	989.6	995.6	988.1
172.5°	997.8	993.3	994.1	1000.1	991.9
175°	1000.8	996.3	997.1	1003.8	994.8
177.5°	1003.1	997.8	999.3	1005.3	996.3
180°	1000.8	1000.8	1000.8	1000.8	1000.8

(END OF REPORT)