

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: P1033199

Luminaire Tested: S124DIW-B1020D470UB40-4F0-XX-W2A-F1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033199
REPORT IS A COMBINATION OF REPORTS P996872 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1020D470UB40-4F0-XX-W2A-F1
Description: Define 4 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

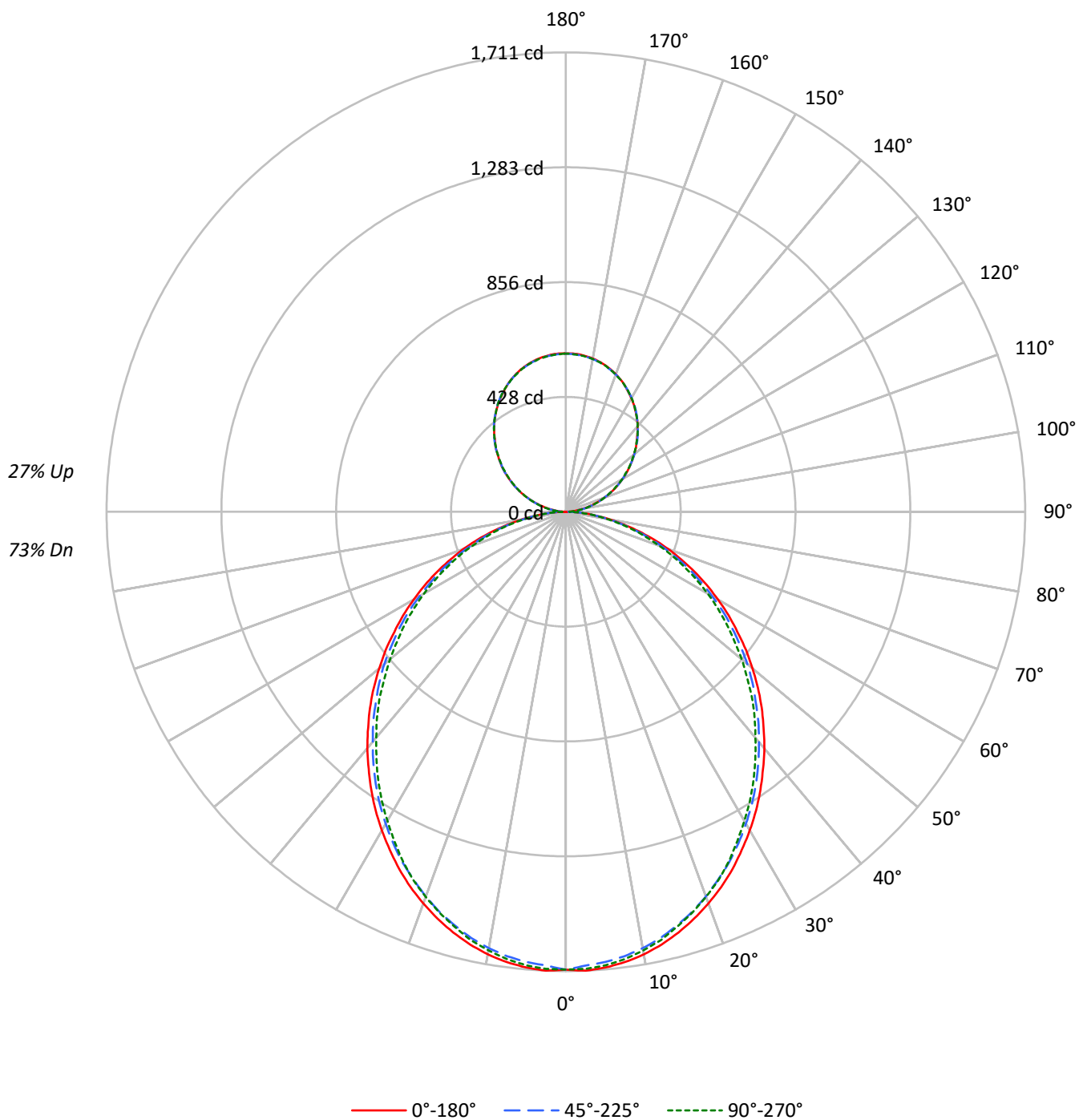
Lumens per Lamp: N/A
Luminaire Lumens: 6013.0 lumens
Efficiency: N/A
Efficacy: 100.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 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
RCR																	
0	113	113	113	113	107	107	107	107	96	96	96	86	86	86	77	77	77
1	103	98	94	91	97	93	90	87	84	82	79	76	74	72	68	67	65
2	94	86	79	74	89	82	76	71	74	69	65	67	63	60	60	57	55
3	85	76	68	62	81	72	65	60	65	60	55	59	54	51	53	50	47
4	78	67	59	52	74	64	56	51	58	52	47	53	48	44	47	44	40
5	72	60	51	45	68	57	49	44	52	46	41	47	42	38	43	39	35
6	66	54	45	39	63	51	44	38	47	40	36	43	37	33	39	34	31
7	62	49	40	35	58	47	39	34	43	36	32	39	34	30	36	31	28
8	57	44	36	31	54	43	35	30	39	33	28	36	30	26	33	28	25
9	53	41	33	28	51	39	32	27	36	30	25	33	28	24	30	26	22
10	50	37	30	25	47	36	29	24	33	27	23	31	25	22	28	24	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13906	13906	13906
5°	13917	13506	13522
10°	13800	13130	13039
15°	13602	12685	12494
20°	13349	12203	11929
25°	13064	11693	11321
30°	12721	11142	10654
35°	12365	10579	10010
40°	11995	9972	9324
45°	11608	9363	8683
50°	11177	8773	7973
55°	10710	8084	7267
60°	10231	7329	6533
65°	9684	6550	5705
70°	9053	5611	4818
75°	8112	4522	3859
80°	6914	3269	2714
85°	5370	1822	1461

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11608 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.7	2.7
10°-20°	452.8	7.5
20°-30°	666.4	11.1
30°-40°	774.7	12.9
40°-50°	774.6	12.9
50°-60°	677.5	11.3
60°-70°	503.0	8.4
70°-80°	285.4	4.7
80°-90°	83.0	1.4
90°-100°	38.4	0.6
100°-110°	115.0	1.9
110°-120°	195.4	3.2
120°-130°	257.7	4.3
130°-140°	289.5	4.8
140°-150°	284.5	4.7
150°-160°	239.3	4.0
160°-170°	159.2	2.6
170°-180°	55.7	0.9
0°-30°	1280.0	21.3
0°-40°	2054.7	34.2
0°-60°	3506.8	58.3
0°-90°	4378.2	72.8
90°-120°	348.8	5.8
90°-150°	1180.5	19.6
90°-180°	1635.0	27.2
0°-180°	6013.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1705	1705	1705	1705	1705	
5°	1704	1698	1683	1698	1696	162
15°	1622	1616	1596	1604	1600	457
25°	1469	1459	1440	1442	1436	676
35°	1264	1254	1235	1226	1219	790
45°	1032	1022	1000	985	981	795
55°	780	776	757	741	732	699
65°	529	522	508	495	488	523
75°	282	275	268	262	261	299
85°	74	74	71	71	70	79
90°	1	6	10	13	14	7
95°	27	31	35	36	36	30
105°	106	107	108	110	111	113
115°	199	199	198	197	197	196
125°	289	289	289	288	287	258
135°	373	376	376	375	374	289
145°	453	455	456	455	454	284
155°	520	520	519	521	519	239
165°	566	564	563	566	564	159
175°	588	586	586	589	586	56
180°	589	589	589	589	589	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1705.3	1705.3	1705.3	1705.3	1705.3
2.5°	1710.8	1706.7	1691.6	1705.3	1703.9
5°	1703.9	1698.5	1683.4	1698.5	1695.7
7.5°	1691.6	1686.2	1669.8	1682.1	1680.7
10°	1673.9	1668.4	1650.6	1661.6	1658.8
12.5°	1650.6	1645.2	1626.1	1638.4	1634.3
15°	1622.0	1616.5	1596.0	1604.2	1600.1
17.5°	1589.2	1582.3	1563.2	1568.7	1565.9
20°	1552.3	1545.4	1524.9	1529.0	1526.3
22.5°	1512.6	1503.1	1482.6	1490.8	1485.3
25°	1468.9	1459.3	1440.2	1441.6	1436.1
27.5°	1419.7	1410.2	1392.4	1389.7	1382.8
30°	1370.5	1359.6	1341.8	1336.4	1329.5
32.5°	1318.6	1309.0	1289.9	1283.1	1276.2
35°	1263.9	1254.4	1235.3	1225.7	1218.9
37.5°	1206.6	1198.4	1177.9	1168.3	1158.7
40°	1150.5	1139.6	1119.1	1105.4	1098.6
42.5°	1090.4	1084.9	1061.7	1045.3	1041.2
45°	1031.7	1022.1	1000.2	985.2	981.1
47.5°	970.2	963.3	942.8	926.4	915.5
50°	907.3	901.8	882.7	863.6	855.4
52.5°	845.8	839.0	818.5	802.1	791.2
55°	780.2	776.1	757.0	740.6	732.4
57.5°	718.7	714.6	695.5	679.1	670.9
60°	654.5	647.7	629.9	617.6	610.8
62.5°	591.7	586.2	567.1	556.1	549.3
65°	528.8	522.0	508.3	494.6	487.8
67.5°	464.6	459.1	445.5	431.8	430.4
70°	405.8	396.3	385.3	374.4	370.3
72.5°	343.0	333.4	325.2	317.0	312.9
75°	281.5	274.7	267.8	262.4	261.0
77.5°	221.4	218.6	211.8	210.4	206.3
80°	168.1	164.0	161.2	158.5	157.1
82.5°	116.1	114.8	114.8	113.4	112.0
85°	73.8	73.8	71.1	71.1	69.7
87.5°	35.5	34.2	32.8	32.8	32.8
90°	1.4	6.4	10.0	12.8	13.7
92.5°	11.8	17.8	20.0	21.4	21.9
95°	27.3	31.4	34.6	36.0	36.0
97.5°	43.7	47.4	51.0	52.9	52.9
100°	63.8	65.6	69.7	70.6	70.6
102.5°	84.8	85.2	88.9	90.2	90.7
105°	106.2	106.6	108.4	109.8	111.2
107.5°	128.5	129.0	129.4	131.2	130.8
110°	151.3	152.2	151.7	150.8	152.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	175.0	175.0	174.1	174.1	174.1
115°	198.7	198.7	197.8	197.3	196.8
117.5°	221.0	221.0	220.5	219.2	217.8
120°	243.3	245.1	243.8	241.5	242.4
122.5°	266.6	267.0	266.6	265.2	262.9
125°	289.3	289.3	288.9	288.0	287.1
127.5°	309.9	311.2	310.3	309.4	308.9
130°	331.7	333.1	333.1	332.2	330.4
132.5°	354.1	355.0	354.5	353.6	353.1
135°	373.2	375.9	375.9	375.0	373.6
137.5°	394.6	396.0	396.9	395.5	396.0
140°	416.0	416.9	416.9	416.5	416.0
142.5°	435.6	436.5	436.1	436.1	436.1
145°	453.4	455.2	455.7	455.2	453.8
147.5°	471.6	473.9	473.4	473.0	472.5
150°	488.0	489.8	489.8	489.8	489.4
152.5°	503.5	504.4	504.9	506.2	504.9
155°	519.5	519.5	519.0	520.8	519.0
157.5°	533.1	532.2	532.2	533.6	532.2
160°	545.0	544.5	544.1	545.4	543.2
162.5°	555.9	554.5	554.1	556.8	554.5
165°	565.5	564.1	563.2	565.9	564.1
167.5°	573.2	571.4	571.4	574.1	571.4
170°	579.6	577.3	577.8	580.5	577.3
172.5°	584.2	582.3	582.3	585.5	582.3
175°	588.3	586.0	585.5	588.7	585.5
177.5°	590.1	587.8	587.8	591.0	587.4
180°	589.2	589.2	589.2	589.2	589.2

(END OF REPORT)