

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: P1031601

Luminaire Tested: S123DIW-B340D1320UB40-4F0-XX-W2A-F

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031601
REPORT IS A COMBINATION OF REPORTS P991299 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIW-B340D1320UB40-4F0-XX-W2A-F
Description: Define 3 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

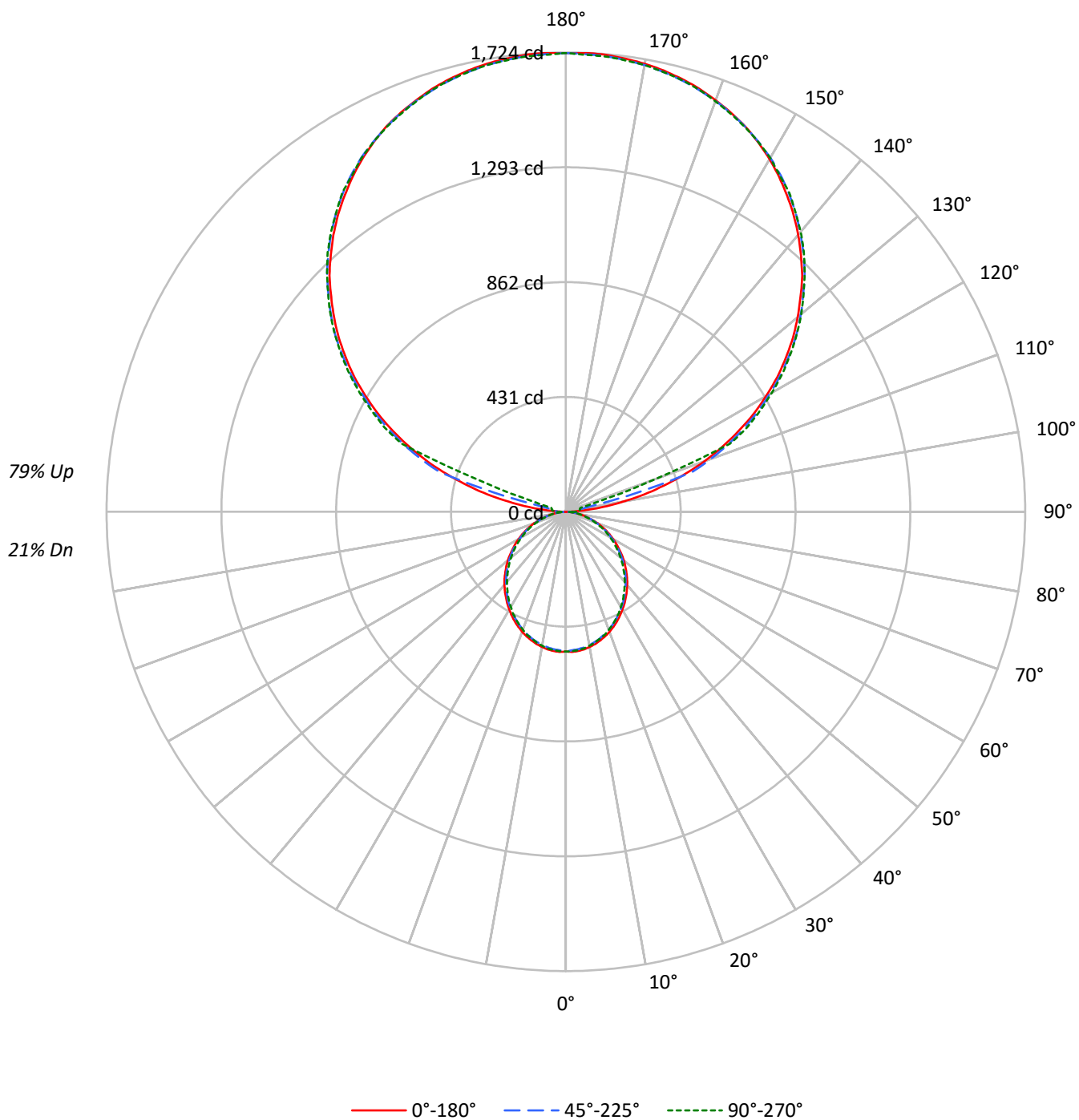
Lumens per Lamp: N/A
Luminaire Lumens: 6617.0 lumens
Efficiency: N/A
Efficacy: 120.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 55.1
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	100	100	100	100	89	89	89	89	67	67	67	47	47	47	29	29	29
1	91	87	83	80	81	77	74	71	59	57	55	41	40	39	26	25	25
2	83	76	70	65	73	67	62	58	51	48	45	36	34	33	23	22	21
3	76	67	60	54	67	59	53	49	45	41	38	32	30	28	20	19	17
4	69	59	51	46	61	52	46	41	40	36	32	28	26	23	18	16	15
5	63	52	44	39	56	46	40	35	36	31	27	25	22	20	16	14	13
6	58	47	39	33	51	42	35	30	32	27	24	23	20	18	14	13	11
7	54	42	34	29	47	37	31	26	29	24	21	21	18	15	13	11	10
8	50	38	30	25	44	34	27	23	26	22	18	19	16	14	12	10	9
9	46	34	27	22	41	31	25	20	24	19	16	17	14	12	11	9	8
10	43	31	24	20	38	28	22	18	22	17	14	16	13	11	10	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5646	5646	5646
5°	5659	5450	5442
10°	5610	5266	5212
15°	5531	5074	4961
20°	5442	4861	4713
25°	5326	4637	4446
30°	5200	4404	4166
35°	5066	4167	3888
40°	4928	3917	3615
45°	4775	3674	3329
50°	4620	3403	3043
55°	4421	3121	2752
60°	4216	2809	2443
65°	4022	2472	2121
70°	3746	2100	1745
75°	3344	1662	1355
80°	2888	1169	958
85°	2257	627	479

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4775 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.4	0.7
10°-20°	139.6	2.1
20°-30°	206.2	3.1
30°-40°	240.8	3.6
40°-50°	242.1	3.7
50°-60°	212.7	3.2
60°-70°	158.4	2.4
70°-80°	90.1	1.4
80°-90°	29.1	0.4
90°-100°	60.7	0.9
100°-110°	293.5	4.4
110°-120°	719.3	10.9
120°-130°	913.1	13.8
130°-140°	975.5	14.7
140°-150°	912.2	13.8
150°-160°	735.8	11.1
160°-170°	474.8	7.2
170°-180°	163.6	2.5
0°-30°	395.3	6.0
0°-40°	636.1	9.6
0°-60°	1090.8	16.5
0°-90°	1368.4	20.7
90°-120°	1073.6	16.2
90°-150°	3874.4	58.6
90°-180°	5249.0	79.3
0°-180°	6617.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	524	524	524	524	524	
5°	525	523	518	522	521	50
15°	500	498	492	496	493	141
25°	454	451	445	446	444	209
35°	392	390	384	381	379	245
45°	322	320	314	308	306	248
55°	244	244	238	233	230	219
65°	166	164	160	156	155	164
75°	88	86	85	82	81	94
85°	24	22	22	22	22	25
90°	1	14	31	36	38	6
95°	78	26	40	49	49	93
105°	381	395	280	54	56	404
115°	715	723	734	747	752	706
125°	1008	1018	1023	1026	1028	901
135°	1255	1262	1268	1271	1268	966
145°	1448	1457	1459	1462	1462	906
155°	1595	1592	1594	1600	1592	735
165°	1682	1678	1677	1687	1678	475
175°	1722	1715	1716	1726	1715	164
180°	1722	1722	1722	1722	1722	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	524.5	524.5	524.5	524.5	524.5
2.5°	526.7	524.9	520.0	524.5	524.0
5°	524.9	522.7	517.7	522.2	521.3
7.5°	520.9	518.6	513.7	517.7	517.3
10°	515.5	513.2	507.3	511.4	510.5
12.5°	508.2	506.4	501.0	503.7	503.3
15°	499.7	497.9	492.0	495.6	492.9
17.5°	490.2	488.0	482.1	484.8	483.9
20°	479.4	476.7	470.8	472.6	471.3
22.5°	467.2	464.5	458.6	460.0	458.2
25°	453.7	451.0	445.1	445.6	444.2
27.5°	439.7	437.0	430.7	431.1	429.8
30°	424.4	422.1	415.8	415.8	412.6
32.5°	409.0	405.9	401.4	398.2	396.9
35°	392.3	389.6	383.8	381.1	378.8
37.5°	375.7	372.1	366.2	363.0	361.7
40°	358.1	355.4	349.1	345.4	343.6
42.5°	340.5	337.3	331.0	327.4	325.6
45°	321.5	319.7	313.9	308.5	306.2
47.5°	303.1	300.3	294.9	289.5	287.7
50°	284.1	281.9	276.0	271.0	268.3
52.5°	264.3	262.9	256.6	252.5	249.8
55°	244.0	243.5	237.7	232.7	230.4
57.5°	225.0	223.2	218.7	214.2	211.5
60°	204.3	203.8	198.4	194.4	192.1
62.5°	185.8	184.4	179.0	175.0	173.6
65°	166.4	164.2	159.6	156.0	154.7
67.5°	145.7	143.9	140.3	137.1	135.3
70°	127.2	124.5	121.8	118.6	116.4
72.5°	107.8	106.0	102.8	100.1	99.2
75°	87.9	86.1	84.8	82.5	81.2
77.5°	70.4	69.5	67.6	65.8	65.8
80°	53.2	51.9	51.0	50.5	50.5
82.5°	36.5	36.5	36.5	35.6	35.2
85°	23.5	22.5	22.5	21.6	21.6
87.5°	11.7	10.4	9.9	9.5	9.5
90°	1.3	14.1	30.7	35.8	38.4
92.5°	29.4	21.7	33.3	42.2	43.5
95°	78.0	25.6	39.7	48.6	48.6
97.5°	142.0	106.2	40.9	51.2	52.4
100°	216.2	241.7	42.2	52.4	53.7
102.5°	300.6	317.2	94.7	52.4	55.0
105°	381.2	395.2	280.1	53.7	56.3
107.5°	466.9	478.4	497.6	300.6	133.0
110°	552.6	562.8	576.9	534.7	351.7

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	634.4	643.4	657.4	669.0	666.4
115°	715.0	722.7	734.2	747.0	752.1
117.5°	794.3	803.3	809.7	819.9	821.2
120°	867.2	878.7	882.6	892.8	892.8
122.5°	941.4	950.4	955.5	961.9	963.1
125°	1007.9	1018.1	1023.3	1025.8	1028.4
127.5°	1074.4	1084.7	1091.1	1094.9	1092.3
130°	1135.8	1146.1	1151.2	1156.3	1153.7
132.5°	1194.7	1204.9	1208.7	1213.8	1210.0
135°	1254.8	1262.4	1267.6	1271.4	1267.6
137.5°	1305.9	1316.2	1318.7	1325.1	1322.6
140°	1357.1	1364.8	1368.6	1373.7	1371.2
142.5°	1404.4	1412.1	1415.9	1419.8	1415.9
145°	1447.9	1456.9	1459.4	1462.0	1462.0
147.5°	1490.1	1496.5	1499.1	1501.6	1495.2
150°	1528.5	1532.3	1534.9	1537.5	1533.6
152.5°	1563.0	1564.3	1565.6	1570.7	1564.3
155°	1595.0	1592.5	1593.7	1600.1	1592.5
157.5°	1620.6	1620.6	1619.3	1627.0	1616.8
160°	1643.6	1642.3	1641.1	1648.7	1639.8
162.5°	1665.4	1661.5	1660.2	1669.2	1661.5
165°	1682.0	1678.2	1676.9	1687.1	1678.2
167.5°	1696.1	1690.9	1690.9	1701.2	1690.9
170°	1707.6	1702.5	1702.5	1712.7	1702.5
172.5°	1715.2	1708.8	1710.1	1720.4	1708.8
175°	1721.6	1715.2	1716.5	1725.5	1715.2
177.5°	1724.2	1717.8	1719.1	1729.3	1716.5
180°	1721.6	1721.6	1721.6	1721.6	1721.6

(END OF REPORT)