

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: P1031737

Luminaire Tested: S123DIW-B560D1320UB35-4F0-XX-W2A-D

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031737
REPORT IS A COMBINATION OF REPORTS P991617 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIW-B560D1320UB35-4F0-XX-W2A-D
Description: Define 3 Direct/Indirect Wall Mount with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

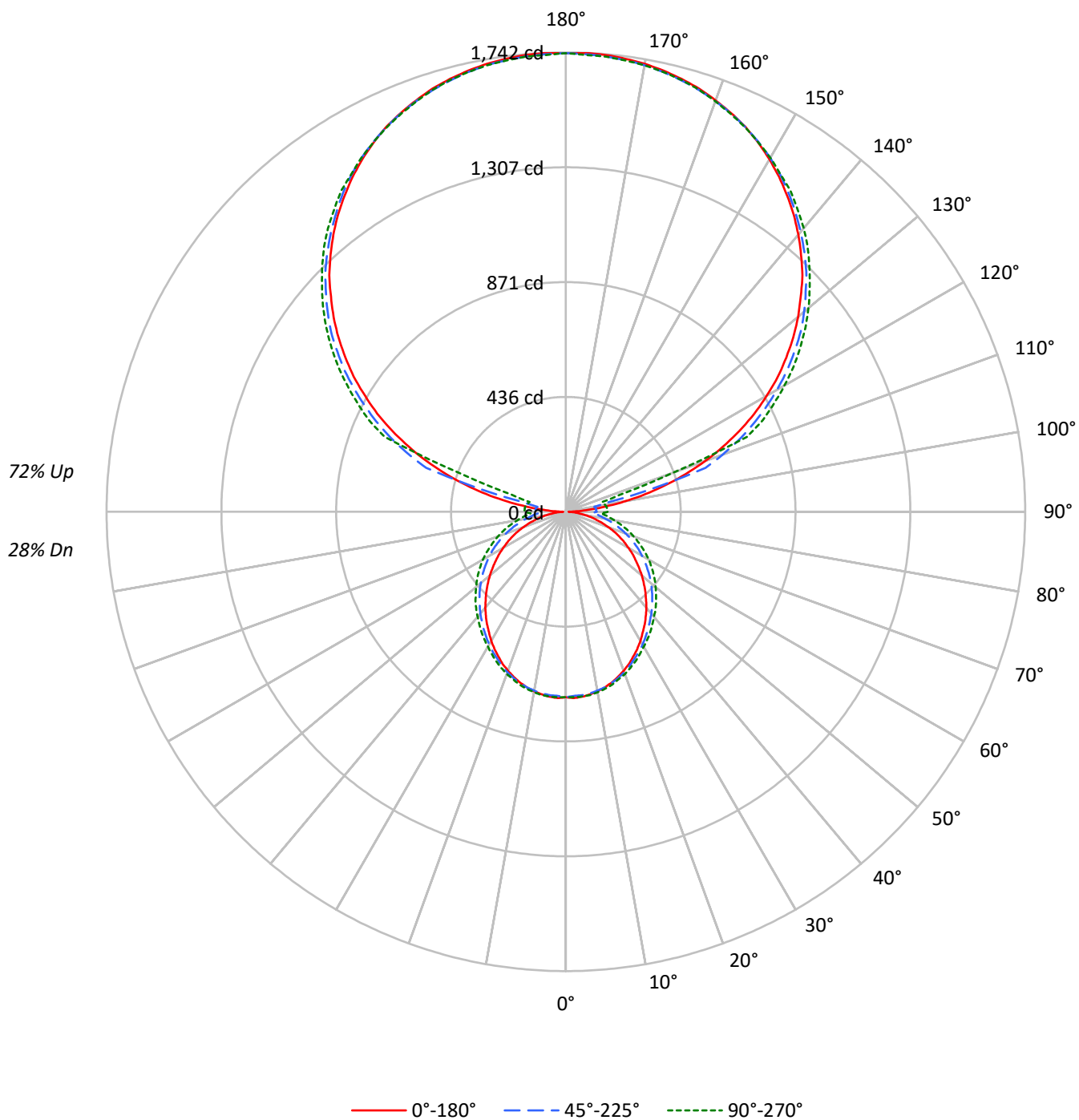
Lumens per Lamp: N/A
Luminaire Lumens: 7669.0 lumens
Efficiency: N/A
Efficacy: 116.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 66.1
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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36
1	92	88	84	80	82	79	75	72	61	59	57	46	44	43	31	30	29
2	84	76	70	65	75	68	63	59	53	50	47	40	37	35	27	25	24
3	76	67	60	54	68	60	54	49	47	43	39	35	32	29	24	22	20
4	70	59	51	45	62	53	46	41	41	37	33	31	28	25	21	19	17
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15
6	59	47	39	33	52	42	35	30	33	28	24	25	21	19	17	15	13
7	54	42	34	29	48	38	31	26	30	25	21	22	19	16	15	13	12
8	50	38	30	25	44	34	28	23	27	22	19	20	17	14	14	12	10
9	46	34	27	22	41	31	25	20	25	20	17	19	15	13	13	11	9
10	43	31	24	20	39	28	22	18	23	18	15	17	14	12	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7571	7571	7571
5°	7592	7349	7343
10°	7521	7150	7096
15°	7422	6930	6833
20°	7280	6686	6550
25°	7106	6410	6259
30°	6929	6160	5965
35°	6728	5898	5726
40°	6539	5658	5474
45°	6327	5426	5266
50°	6117	5196	5039
55°	5887	4961	4832
60°	5660	4719	4619
65°	5427	4462	4371
70°	5077	4173	4113
75°	4633	3846	3847
80°	4121	3512	3546
85°	3602	3244	3329

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6327 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.7	0.9
10°-20°	190.2	2.5
20°-30°	284.5	3.7
30°-40°	339.6	4.4
40°-50°	355.4	4.6
50°-60°	333.5	4.3
60°-70°	278.5	3.6
70°-80°	199.2	2.6
80°-90°	122.0	1.6
90°-100°	135.8	1.8
100°-110°	351.2	4.6
110°-120°	763.1	10.0
120°-130°	943.2	12.3
130°-140°	994.7	13.0
140°-150°	923.3	12.0
150°-160°	743.2	9.7
160°-170°	479.6	6.3
170°-180°	165.3	2.2
0°-30°	541.4	7.1
0°-40°	881.0	11.5
0°-60°	1569.9	20.5
0°-90°	2169.6	28.3
90°-120°	1250.1	16.3
90°-150°	4111.4	53.6
90°-180°	5499.0	71.7
0°-180°	7669.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	703	703	703	703	703	
5°	704	703	698	704	703	67
15°	670	673	672	680	679	189
25°	605	613	615	625	625	279
35°	521	533	543	555	558	326
45°	426	444	464	478	484	329
55°	325	350	378	398	405	291
65°	224	254	288	311	319	222
75°	122	158	196	221	231	130
85°	38	76	116	142	150	39
90°	11	62	118	149	159	12
95°	87	64	116	149	156	101
105°	391	424	340	133	143	414
115°	726	743	782	814	825	717
125°	1020	1031	1058	1077	1085	912
135°	1269	1276	1290	1307	1307	977
145°	1463	1472	1474	1483	1486	916
155°	1611	1608	1610	1616	1608	742
165°	1699	1695	1694	1704	1695	480
175°	1739	1733	1734	1743	1733	166
180°	1739	1739	1739	1739	1739	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	703.4	703.4	703.4	703.4	703.4
2.5°	707.2	704.9	698.8	704.9	704.2
5°	704.2	702.6	698.0	704.2	703.4
7.5°	698.8	698.8	694.2	701.9	701.1
10°	691.1	692.7	688.8	696.5	695.0
12.5°	682.0	684.3	682.0	688.8	687.3
15°	670.5	672.8	672.0	679.7	678.9
17.5°	656.7	661.3	660.5	667.4	665.9
20°	641.3	645.9	647.5	654.4	655.1
22.5°	625.3	629.8	632.1	641.3	640.6
25°	605.3	613.0	615.3	625.3	625.3
27.5°	586.2	594.6	599.2	607.6	608.4
30°	565.5	575.4	581.6	590.8	590.8
32.5°	542.5	554.0	562.4	572.4	574.7
35°	521.0	533.3	543.3	554.8	557.8
37.5°	498.1	511.8	523.3	536.4	538.7
40°	475.1	488.9	504.2	517.2	520.3
42.5°	449.8	467.4	483.5	498.1	502.7
45°	426.0	444.4	463.6	478.1	484.3
47.5°	400.7	421.4	442.9	459.0	463.6
50°	376.2	397.7	421.4	439.1	444.4
52.5°	350.2	373.2	400.0	418.4	425.3
55°	324.9	350.2	377.8	398.4	404.6
57.5°	300.4	326.4	356.3	377.0	383.9
60°	274.3	301.9	333.3	354.8	363.2
62.5°	249.8	278.1	311.9	333.3	341.0
65°	224.5	254.4	288.1	311.1	318.8
67.5°	199.2	230.6	264.4	289.6	295.8
70°	172.4	205.4	242.1	266.7	274.3
72.5°	147.9	180.8	219.1	244.4	252.1
75°	121.8	157.8	196.2	221.4	230.6
77.5°	99.6	135.6	173.9	200.8	207.7
80°	75.9	113.4	153.2	179.3	187.0
82.5°	55.2	93.5	134.1	160.1	167.8
85°	37.5	75.9	116.5	142.5	150.2
87.5°	23.0	61.3	100.4	126.4	134.1
90°	11.3	61.7	117.6	148.8	159.1
92.5°	38.9	64.1	114.1	148.3	156.5
95°	87.2	64.1	116.0	148.7	156.4
97.5°	151.1	142.4	112.6	145.9	154.9
100°	225.2	275.6	109.3	141.9	150.8
102.5°	309.7	348.0	157.7	136.5	146.8
105°	391.1	423.7	340.4	133.2	142.6
107.5°	477.0	504.7	555.5	377.2	214.9
110°	562.7	586.9	631.7	609.0	430.4

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	645.4	665.2	708.5	739.3	743.6
115°	726.0	743.0	782.2	813.5	824.8
117.5°	806.1	821.4	853.8	882.6	890.0
120°	879.1	894.5	923.7	951.6	957.0
122.5°	954.0	964.5	993.5	1016.8	1023.5
125°	1020.4	1030.7	1058.1	1076.8	1084.8
127.5°	1087.6	1097.1	1122.8	1141.9	1144.8
130°	1149.6	1159.1	1179.7	1199.4	1201.4
132.5°	1208.2	1218.6	1233.9	1252.9	1254.4
135°	1268.9	1276.0	1289.6	1307.2	1307.2
137.5°	1320.6	1330.3	1338.1	1356.9	1358.1
140°	1371.6	1379.3	1385.5	1402.2	1403.4
142.5°	1419.4	1426.4	1430.2	1444.1	1444.0
145°	1463.3	1471.6	1474.2	1482.8	1485.9
147.5°	1505.2	1511.6	1514.2	1519.1	1515.7
150°	1543.9	1547.8	1550.4	1553.0	1550.6
152.5°	1578.8	1580.1	1581.4	1586.6	1580.1
155°	1611.1	1608.5	1609.8	1616.3	1608.5
157.5°	1636.9	1636.9	1635.7	1643.4	1633.1
160°	1660.2	1658.9	1657.6	1665.4	1656.3
162.5°	1682.2	1678.3	1677.0	1686.0	1678.3
165°	1699.0	1695.1	1693.8	1704.1	1695.1
167.5°	1713.2	1708.0	1708.0	1718.3	1708.0
170°	1724.8	1719.6	1719.6	1730.0	1719.6
172.5°	1732.6	1726.1	1727.4	1737.7	1726.1
175°	1739.0	1732.6	1733.8	1742.9	1732.6
177.5°	1741.6	1735.1	1736.4	1746.8	1733.8
180°	1739.0	1739.0	1739.0	1739.0	1739.0

(END OF REPORT)