

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: P1031521

Luminaire Tested: S123DIW-B1165D460UB50-4F0-XX-W2A-F1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031521
REPORT IS A COMBINATION OF REPORTS P991111 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIW-B1165D460UB50-4F0-XX-W2A-F1
Description: Define 3 Direct/Indirect Wall Mount with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

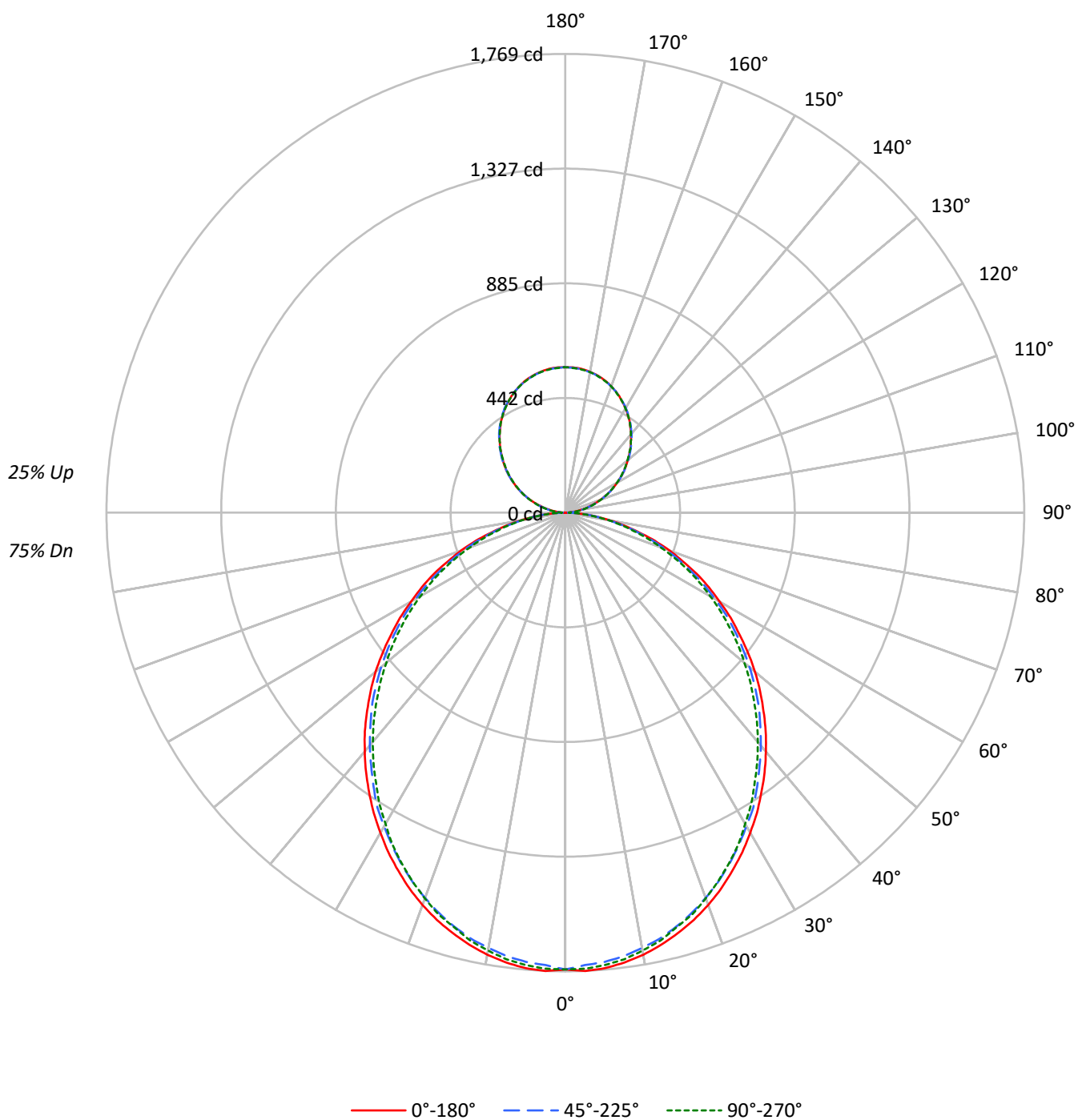
Lumens per Lamp: N/A
Luminaire Lumens: 6140.0 lumens
Efficiency: N/A
Efficacy: 82.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 74.5
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	97	97	97	88	88	88	79	79	79
1	103	99	95	91	98	94	90	87	85	82	80	77	75	73	70	68	66
2	94	86	80	74	89	82	76	71	75	70	66	68	64	61	61	58	56
3	86	76	68	62	81	72	65	60	66	60	56	60	55	51	54	51	48
4	79	67	59	53	74	64	57	51	59	52	47	53	48	44	48	44	41
5	72	60	51	45	68	57	50	44	52	46	41	48	43	38	44	39	36
6	67	54	45	39	63	52	44	38	47	41	36	43	38	34	40	35	31
7	62	49	41	35	59	47	39	34	43	37	32	40	34	30	36	32	28
8	57	45	36	31	54	43	35	30	39	33	28	36	31	27	33	29	25
9	54	41	33	28	51	39	32	27	36	30	26	33	28	24	31	26	23
10	50	38	30	25	48	36	29	24	33	27	23	31	26	22	29	24	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18963	18963	18963
5°	19010	18309	18281
10°	18841	17689	17508
15°	18579	17045	16664
20°	18278	16330	15828
25°	17890	15574	14935
30°	17464	14793	13996
35°	17020	13994	13061
40°	16554	13157	12144
45°	16041	12340	11184
50°	15518	11431	10221
55°	14849	10482	9245
60°	14159	9436	8206
65°	13513	8305	7123
70°	12581	7050	5860
75°	11237	5583	4550
80°	9702	3924	3218
85°	7569	2108	1611

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 16041 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.1	2.7
10°-20°	469.0	7.6
20°-30°	692.6	11.3
30°-40°	808.9	13.2
40°-50°	813.2	13.2
50°-60°	714.4	11.6
60°-70°	532.0	8.7
70°-80°	302.8	4.9
80°-90°	87.3	1.4
90°-100°	36.1	0.6
100°-110°	109.3	1.8
110°-120°	186.0	3.0
120°-130°	244.7	4.0
130°-140°	275.0	4.5
140°-150°	270.4	4.4
150°-160°	227.7	3.7
160°-170°	151.6	2.5
170°-180°	53.1	0.9
0°-30°	1327.7	21.6
0°-40°	2136.6	34.8
0°-60°	3664.1	59.7
0°-90°	4586.2	74.7
90°-120°	331.4	5.4
90°-150°	1121.5	18.3
90°-180°	1554.0	25.3
0°-180°	6140.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1762	1762	1762	1762	1762	
5°	1763	1756	1739	1754	1751	167
15°	1678	1672	1653	1665	1656	473
25°	1524	1515	1495	1497	1492	702
35°	1318	1309	1289	1280	1272	825
45°	1080	1074	1054	1036	1029	834
55°	820	818	798	782	774	734
65°	559	551	536	524	520	551
75°	295	289	285	277	273	316
85°	79	76	76	73	73	84
90°	0	5	11	12	13	7
95°	26	29	33	34	34	29
105°	99	100	104	104	105	106
115°	187	188	188	188	188	185
125°	274	275	274	273	271	244
135°	356	358	358	356	355	274
145°	431	432	434	433	431	269
155°	494	494	494	496	493	227
165°	538	536	536	539	536	152
175°	560	558	558	560	557	53
180°	561	561	561	561	561	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1761.7	1761.7	1761.7	1761.7	1761.7
2.5°	1769.3	1763.2	1746.6	1761.7	1760.2
5°	1763.2	1755.7	1739.0	1754.2	1751.1
7.5°	1749.6	1742.0	1725.4	1739.0	1737.5
10°	1731.4	1723.9	1704.2	1717.8	1714.8
12.5°	1707.2	1701.1	1683.0	1692.0	1690.5
15°	1678.4	1672.4	1652.7	1664.8	1655.7
17.5°	1646.6	1639.0	1619.3	1628.4	1625.4
20°	1610.2	1601.2	1581.5	1587.5	1583.0
22.5°	1569.3	1560.3	1540.6	1545.1	1539.1
25°	1523.9	1514.8	1495.1	1496.6	1492.1
27.5°	1476.9	1467.9	1446.6	1448.2	1443.6
30°	1425.4	1417.9	1396.7	1396.7	1386.1
32.5°	1373.9	1363.3	1348.2	1337.6	1333.0
35°	1317.9	1308.8	1289.1	1280.0	1272.4
37.5°	1261.8	1249.7	1230.0	1219.4	1214.9
40°	1202.8	1193.7	1172.5	1160.3	1154.3
42.5°	1143.7	1133.1	1111.9	1099.8	1093.7
45°	1080.1	1074.0	1054.3	1036.1	1028.6
47.5°	1018.0	1008.9	990.7	972.5	966.5
50°	954.3	946.8	927.1	910.4	901.3
52.5°	887.7	883.1	861.9	848.3	839.2
55°	819.5	818.0	798.3	781.6	774.1
57.5°	755.9	749.8	734.7	719.5	710.4
60°	686.2	684.7	666.5	652.9	645.3
62.5°	624.1	619.6	601.4	587.7	583.2
65°	559.0	551.4	536.2	524.1	519.6
67.5°	489.3	483.2	471.1	460.5	454.4
70°	427.2	418.1	409.0	398.4	390.8
72.5°	362.0	356.0	345.4	336.3	333.3
75°	295.4	289.3	284.8	277.2	272.7
77.5°	236.3	233.3	227.2	221.2	221.2
80°	178.7	174.2	171.2	169.7	169.7
82.5°	122.7	122.7	122.7	119.7	118.2
85°	78.8	75.7	75.7	72.7	72.7
87.5°	39.4	34.8	33.3	31.8	31.8
90°	0.4	4.8	10.6	12.3	13.2
92.5°	13.2	15.9	18.5	19.8	18.9
95°	26.0	29.1	32.6	34.4	34.4
97.5°	42.7	44.9	47.6	49.8	49.3
100°	59.9	62.6	64.8	66.1	67.0
102.5°	79.7	81.1	84.1	85.5	85.0
105°	99.1	100.0	104.0	104.0	104.8
107.5°	122.0	122.5	124.2	125.5	125.1
110°	143.2	144.0	144.9	146.7	145.8

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	165.2	165.6	165.6	167.8	167.8
115°	187.2	188.5	187.7	188.1	187.7
117.5°	209.7	210.1	209.2	209.2	207.9
120°	230.4	233.0	230.8	230.4	229.5
122.5°	252.0	253.7	252.9	251.5	250.2
125°	274.0	275.3	274.4	272.7	270.9
127.5°	294.3	296.9	296.0	293.4	291.6
130°	314.5	318.1	316.7	315.0	311.9
132.5°	334.8	338.3	337.4	335.2	333.0
135°	355.5	358.1	357.7	355.9	355.1
137.5°	374.4	376.6	378.0	375.8	374.4
140°	394.3	396.5	396.9	396.5	393.4
142.5°	412.3	414.5	415.4	415.0	412.8
145°	431.3	432.1	433.5	433.0	431.3
147.5°	447.6	449.3	450.6	450.6	448.0
150°	464.7	465.6	466.5	466.5	463.9
152.5°	478.8	480.2	480.6	481.5	479.3
155°	493.8	493.8	494.3	496.0	492.9
157.5°	506.6	506.2	506.6	508.4	505.7
160°	518.5	517.6	517.6	519.8	518.0
162.5°	529.1	527.7	528.2	530.4	527.3
165°	537.9	536.5	536.5	539.2	536.1
167.5°	545.4	543.6	544.0	546.7	544.0
170°	551.5	549.8	549.8	552.8	549.8
172.5°	556.4	554.6	554.6	557.3	554.2
175°	559.5	557.7	557.7	560.3	557.3
177.5°	561.2	559.5	559.5	562.1	559.0
180°	560.8	560.8	560.8	560.8	560.8

(END OF REPORT)