

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: P1031496

Luminaire Tested: S123DIW-B1165D460UB27-4F0-XX-W2A-F

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031496
REPORT IS A COMBINATION OF REPORTS P991053 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIW-B1165D460UB27-4F0-XX-W2A-F
Description: Define 3 Direct/Indirect Wall Mount with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

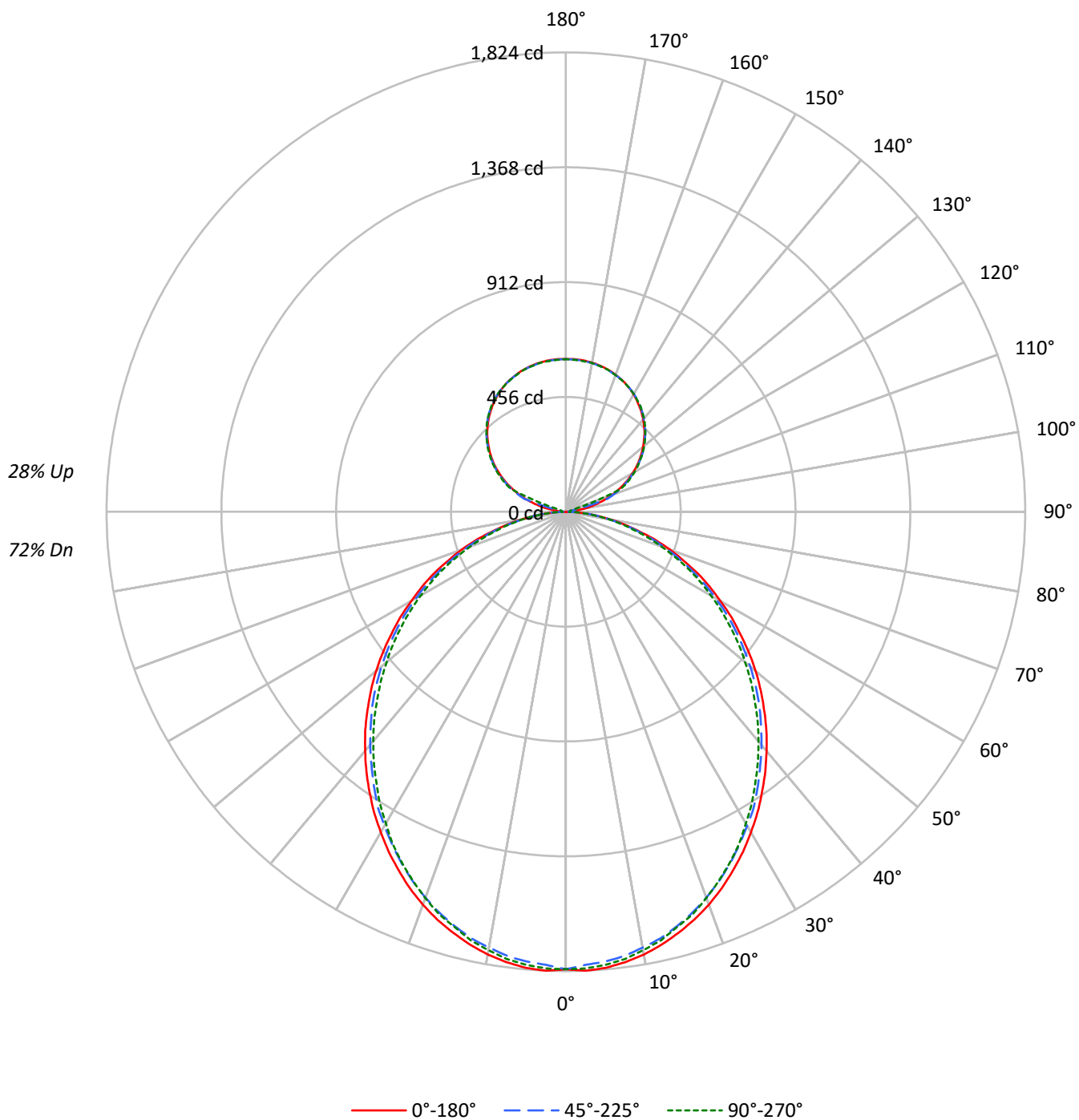
Lumens per Lamp: N/A
Luminaire Lumens: 6576.0 lumens
Efficiency: N/A
Efficacy: 88.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

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	112	112	112	112	106	106	106	106	96	96	96	85	85	85	76	76	76
1	103	98	94	90	97	93	90	86	84	81	79	75	73	71	67	66	64
2	93	86	79	74	88	81	76	71	73	69	65	66	62	59	59	56	54
3	85	75	68	62	80	72	65	59	65	59	55	58	54	50	52	49	46
4	78	67	58	52	74	64	56	50	58	51	47	52	47	43	47	43	40
5	72	60	51	45	68	57	49	43	52	45	40	47	42	37	42	38	35
6	66	54	45	39	63	51	43	38	47	40	35	42	37	33	38	34	30
7	61	49	40	34	58	46	39	33	42	36	31	39	33	29	35	31	27
8	57	44	36	31	54	42	35	30	39	32	28	35	30	26	32	28	24
9	53	40	33	27	50	39	32	27	36	29	25	33	27	23	30	25	22
10	50	37	30	25	47	36	29	24	33	27	23	30	25	21	28	23	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19550	19550	19550
5°	19600	18876	18848
10°	19425	18237	18050
15°	19155	17572	17181
20°	18845	16834	16318
25°	18444	16057	15398
30°	18006	15251	14429
35°	17547	14428	13467
40°	17066	13565	12519
45°	16537	12723	11530
50°	15999	11785	10537
55°	15309	10807	9531
60°	14599	9730	8461
65°	13931	8563	7344
70°	12969	7269	6041
75°	11583	5755	4690
80°	10006	4046	3317
85°	7800	2175	1662

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 16537 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.2	2.6
10°-20°	483.5	7.4
20°-30°	714.1	10.9
30°-40°	834.0	12.7
40°-50°	838.4	12.7
50°-60°	736.5	11.2
60°-70°	548.5	8.3
70°-80°	312.1	4.7
80°-90°	90.0	1.4
90°-100°	21.4	0.3
100°-110°	103.3	1.6
110°-120°	253.2	3.9
120°-130°	321.5	4.9
130°-140°	343.4	5.2
140°-150°	321.1	4.9
150°-160°	259.0	3.9
160°-170°	167.2	2.5
170°-180°	57.6	0.9
0°-30°	1368.8	20.8
0°-40°	2202.7	33.5
0°-60°	3777.6	57.4
0°-90°	4728.2	71.9
90°-120°	378.0	5.7
90°-150°	1364.0	20.7
90°-180°	1848.0	28.1
0°-180°	6576.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1816	1816	1816	1816	1816	
5°	1818	1810	1793	1808	1805	172
15°	1730	1724	1704	1716	1707	488
25°	1571	1562	1541	1543	1538	724
35°	1359	1349	1329	1320	1312	850
45°	1114	1107	1087	1068	1060	860
55°	845	843	823	806	798	757
65°	576	568	553	540	536	569
75°	304	298	294	286	281	325
85°	81	78	78	75	75	87
90°	0	5	11	13	14	7
95°	28	9	14	17	17	33
105°	134	139	99	19	20	142
115°	252	254	258	263	265	249
125°	355	358	360	361	362	317
135°	442	444	446	448	446	340
145°	510	513	514	515	515	319
155°	562	561	561	563	561	259
165°	592	591	590	594	591	167
175°	606	604	604	608	604	58
180°	606	606	606	606	606	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1816.3	1816.3	1816.3	1816.3	1816.3
2.5°	1824.1	1817.9	1800.7	1816.3	1814.7
5°	1817.9	1810.0	1792.9	1808.5	1805.4
7.5°	1803.8	1796.0	1778.8	1792.9	1791.3
10°	1785.1	1777.2	1756.9	1771.0	1767.9
12.5°	1760.1	1753.8	1735.1	1744.5	1742.9
15°	1730.4	1724.1	1703.8	1716.3	1707.0
17.5°	1697.6	1689.8	1669.5	1678.9	1675.7
20°	1660.1	1650.7	1630.4	1636.7	1632.0
22.5°	1618.0	1608.6	1588.3	1593.0	1586.7
25°	1571.1	1561.7	1541.4	1543.0	1538.3
27.5°	1522.7	1513.3	1491.5	1493.0	1488.3
30°	1469.6	1461.8	1439.9	1439.9	1429.0
32.5°	1416.5	1405.6	1389.9	1379.0	1374.3
35°	1358.7	1349.3	1329.0	1319.7	1311.9
37.5°	1300.9	1288.4	1268.1	1257.2	1252.5
40°	1240.0	1230.6	1208.8	1196.3	1190.0
42.5°	1179.1	1168.2	1146.3	1133.8	1127.6
45°	1113.5	1107.3	1087.0	1068.2	1060.4
47.5°	1049.5	1040.1	1021.4	1002.6	996.4
50°	983.9	976.1	955.8	938.6	929.2
52.5°	915.2	910.5	888.6	874.6	865.2
55°	844.9	843.3	823.0	805.9	798.0
57.5°	779.3	773.1	757.4	741.8	732.5
60°	707.5	705.9	687.2	673.1	665.3
62.5°	643.4	638.7	620.0	606.0	601.3
65°	576.3	568.5	552.9	540.4	535.7
67.5°	504.4	498.2	485.7	474.8	468.5
70°	440.4	431.0	421.7	410.7	402.9
72.5°	373.3	367.0	356.1	346.7	343.6
75°	304.5	298.3	293.6	285.8	281.1
77.5°	243.6	240.5	234.3	228.0	228.0
80°	184.3	179.6	176.5	174.9	174.9
82.5°	126.5	126.5	126.5	123.4	121.8
85°	81.2	78.1	78.1	75.0	75.0
87.5°	40.6	35.9	34.4	32.8	32.8
90°	0.5	5.0	10.8	12.6	13.5
92.5°	10.4	7.7	11.7	14.9	15.3
95°	27.5	9.0	14.0	17.1	17.1
97.5°	50.0	37.4	14.4	18.0	18.5
100°	76.1	85.1	14.9	18.5	18.9
102.5°	105.8	111.7	33.3	18.5	19.4
105°	134.2	139.1	98.6	18.9	19.8
107.5°	164.4	168.4	175.2	105.8	46.8
110°	194.5	198.1	203.1	188.2	123.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	223.4	226.5	231.5	235.5	234.6
115°	251.7	254.4	258.5	263.0	264.8
117.5°	279.6	282.8	285.0	288.6	289.1
120°	305.3	309.4	310.7	314.3	314.3
122.5°	331.4	334.6	336.4	338.6	339.1
125°	354.8	358.4	360.2	361.1	362.0
127.5°	378.3	381.9	384.1	385.5	384.6
130°	399.9	403.5	405.3	407.1	406.2
132.5°	420.6	424.2	425.5	427.3	426.0
135°	441.8	444.5	446.3	447.6	446.3
137.5°	459.8	463.4	464.3	466.5	465.6
140°	477.8	480.5	481.8	483.6	482.7
142.5°	494.4	497.1	498.5	499.8	498.5
145°	509.7	512.9	513.8	514.7	514.7
147.5°	524.6	526.9	527.8	528.7	526.4
150°	538.1	539.5	540.4	541.3	539.9
152.5°	550.3	550.7	551.2	553.0	550.7
155°	561.5	560.6	561.1	563.3	560.6
157.5°	570.5	570.5	570.1	572.8	569.2
160°	578.6	578.2	577.7	580.4	577.3
162.5°	586.3	584.9	584.5	587.7	584.9
165°	592.2	590.8	590.4	594.0	590.8
167.5°	597.1	595.3	595.3	598.9	595.3
170°	601.2	599.4	599.4	603.0	599.4
172.5°	603.9	601.6	602.1	605.7	601.6
175°	606.1	603.9	604.3	607.5	603.9
177.5°	607.0	604.8	605.2	608.8	604.3
180°	606.1	606.1	606.1	606.1	606.1

(END OF REPORT)