

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: P1031495

Luminaire Tested: S123DIW-B1165D460UB27-4F0-XX-W2A-D1

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031495
REPORT IS A COMBINATION OF REPORTS P991051 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-D1
Description: Define 3 Direct/Indirect Wall Mount with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

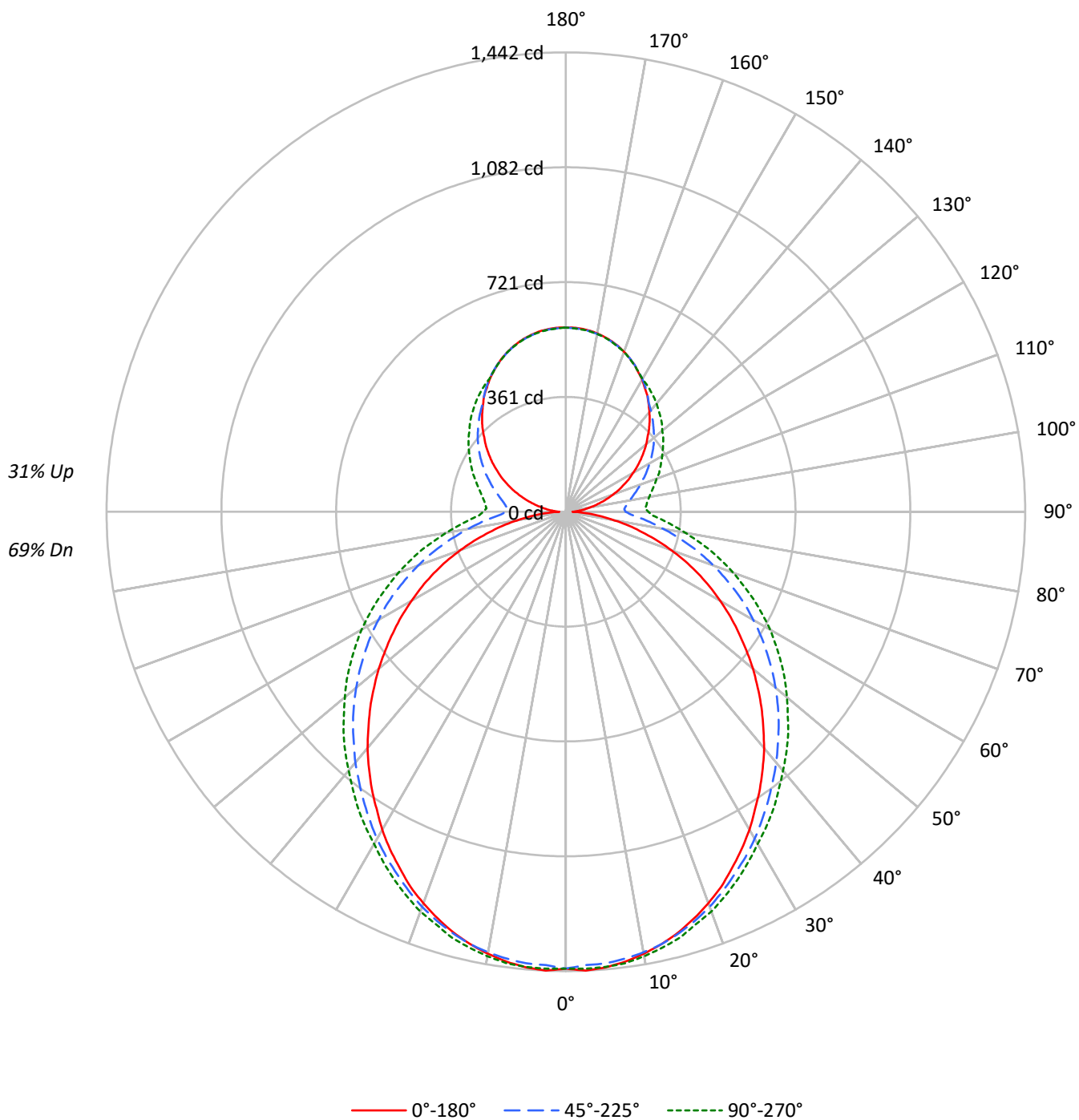
Lumens per Lamp: N/A
Luminaire Lumens: 6422.0 lumens
Efficiency: N/A
Efficacy: 86.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

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

TEST NUMBER: P1031495

CATALOG NUMBER: S123DIW-B1165D460UB27-4F0-XX-W2A-D1

Luminous Intensity Polar Plot



TEST NUMBER: P1031495

CATALOG NUMBER: S123DIW-B1165D460UB27-4F0-XX-W2A-D1

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	105	105	105	105	94	94	94	83	83	83	73	73	73
1	101	95	91	87	95	90	86	82	80	77	74	71	69	66	63	61	59
2	91	83	76	70	85	78	72	67	69	65	60	62	58	54	54	51	49
3	83	72	64	58	78	68	61	55	61	55	50	54	49	45	48	44	41
4	76	64	55	48	71	60	52	46	54	47	42	48	43	39	42	38	35
5	69	57	48	41	65	54	46	40	48	41	36	43	37	33	38	34	30
6	64	51	42	36	60	48	40	34	43	37	32	39	33	29	34	30	26
7	59	46	37	31	55	44	36	30	39	33	28	35	30	26	31	27	23
8	55	42	33	28	52	40	32	27	36	29	25	32	27	23	29	24	21
9	51	38	30	25	48	36	29	24	33	27	22	30	24	21	27	22	19
10	48	35	27	22	45	33	26	22	30	24	20	27	22	19	25	20	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15434	15434	15434
5°	15477	14982	14969
10°	15332	14576	14464
15°	15129	14128	13929
20°	14841	13628	13354
25°	14487	13066	12758
30°	14123	12556	12160
35°	13716	12022	11673
40°	13328	11534	11158
45°	12898	11061	10734
50°	12471	10593	10273
55°	12000	10112	9850
60°	11539	9621	9416
65°	11064	9096	8908
70°	10348	8509	8384
75°	9449	7839	7845
80°	8393	7161	7228
85°	7348	6611	6785

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 12898 cd/sqm

TEST NUMBER: P1031495

CATALOG NUMBER: S123DIW-B1165D460UB27-4F0-XX-W2A-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.0	2.1
10°-20°	387.8	6.0
20°-30°	579.9	9.0
30°-40°	692.3	10.8
40°-50°	724.4	11.3
50°-60°	679.8	10.6
60°-70°	567.8	8.8
70°-80°	406.0	6.3
80°-90°	242.8	3.8
90°-100°	189.0	2.9
100°-110°	224.2	3.5
110°-120°	266.3	4.1
120°-130°	294.8	4.6
130°-140°	302.6	4.7
140°-150°	282.7	4.4
150°-160°	234.7	3.7
160°-170°	156.2	2.4
170°-180°	54.7	0.9
0°-30°	1103.7	17.2
0°-40°	1796.0	28.0
0°-60°	3200.1	49.8
0°-90°	4416.8	68.8
90°-120°	679.5	10.6
90°-150°	1559.6	24.3
90°-180°	2005.0	31.2
0°-180°	6422.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1434	1434	1434	1434	1434	
5°	1436	1432	1423	1436	1434	136
15°	1367	1371	1370	1386	1384	385
25°	1234	1250	1254	1275	1275	569
35°	1062	1087	1107	1131	1137	664
45°	868	906	945	975	987	670
55°	662	714	770	812	825	593
65°	458	519	587	634	650	452
75°	248	322	400	451	470	265
85°	76	155	237	290	306	79
90°	21	102	187	242	259	17
95°	44	108	188	238	254	43
105°	115	153	224	268	283	122
115°	201	221	276	314	326	199
125°	287	288	333	364	373	257
135°	370	371	387	414	421	285
145°	446	446	447	459	463	278
155°	509	509	510	511	508	234
165°	554	553	553	556	553	156
175°	577	575	575	578	574	55
180°	578	578	578	578	578	

TEST NUMBER: P1031495

CATALOG NUMBER: S123DIW-B1165D460UB27-4F0-XX-W2A-D1

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1433.9	1433.9	1433.9	1433.9	1433.9
2.5°	1441.7	1437.0	1424.5	1437.0	1435.5
5°	1435.5	1432.3	1423.0	1435.5	1433.9
7.5°	1424.5	1424.5	1415.1	1430.8	1429.2
10°	1408.9	1412.0	1404.2	1419.8	1416.7
12.5°	1390.2	1394.8	1390.2	1404.2	1401.1
15°	1366.7	1371.4	1369.9	1385.5	1383.9
17.5°	1338.6	1348.0	1346.4	1360.5	1357.4
20°	1307.4	1316.7	1319.9	1333.9	1335.5
22.5°	1274.6	1283.9	1288.6	1307.4	1305.8
25°	1234.0	1249.6	1254.3	1274.6	1274.6
27.5°	1194.9	1212.1	1221.5	1238.6	1240.2
30°	1152.7	1173.0	1185.5	1204.3	1204.3
32.5°	1105.9	1129.3	1146.5	1166.8	1171.5
35°	1062.1	1087.1	1107.4	1130.9	1137.1
37.5°	1015.3	1043.4	1066.8	1093.4	1098.1
40°	968.4	996.5	1027.8	1054.3	1060.6
42.5°	916.9	952.8	985.6	1015.3	1024.7
45°	868.5	905.9	945.0	974.7	987.2
47.5°	816.9	859.1	902.8	935.6	945.0
50°	766.9	810.7	859.1	895.0	905.9
52.5°	713.8	760.7	815.4	852.8	866.9
55°	662.3	713.8	770.1	812.2	824.7
57.5°	612.3	665.4	726.3	768.5	782.5
60°	559.2	615.4	679.5	723.2	740.4
62.5°	509.2	567.0	635.7	679.5	695.1
65°	457.7	518.6	587.3	634.2	649.8
67.5°	406.1	470.2	538.9	590.4	602.9
70°	351.4	418.6	493.6	543.6	559.2
72.5°	301.5	368.6	446.7	498.3	513.9
75°	248.4	321.8	399.9	451.4	470.2
77.5°	203.1	276.5	354.6	409.2	423.3
80°	154.6	231.2	312.4	365.5	381.1
82.5°	112.5	190.6	273.3	326.5	342.1
85°	76.5	154.6	237.4	290.5	306.1
87.5°	46.9	125.0	204.6	257.7	273.3
90°	20.8	101.8	187.4	242.3	258.8
92.5°	32.3	102.2	183.1	236.0	249.1
95°	44.0	108.1	188.2	238.5	254.1
97.5°	59.6	118.2	194.3	243.4	258.6
100°	75.9	128.5	202.7	249.3	265.8
102.5°	94.7	139.8	213.2	258.4	273.5
105°	114.7	153.1	224.3	268.1	283.0
107.5°	136.7	169.9	235.9	279.3	293.0
110°	157.0	186.0	249.4	291.8	303.4



TEST NUMBER: P1031495

CATALOG NUMBER: S123DIW-B1165D460UB27-4F0-XX-W2A-D1

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	179.7	201.9	261.3	302.6	316.7
115°	200.8	221.0	276.3	314.2	326.3
117.5°	224.0	236.9	289.1	326.6	337.7
120°	243.7	254.3	303.6	339.0	349.1
122.5°	266.0	271.0	318.5	351.5	361.0
125°	287.2	288.5	332.9	363.9	373.0
127.5°	308.0	309.2	347.4	375.8	384.9
130°	328.9	331.0	360.9	388.7	394.9
132.5°	348.2	351.9	374.5	400.3	408.9
135°	369.6	370.8	387.4	413.8	420.7
137.5°	389.1	389.9	402.1	424.9	431.3
140°	408.0	410.3	415.4	438.4	443.0
142.5°	426.7	427.3	428.2	448.1	453.6
145°	446.2	445.5	446.8	458.9	463.3
147.5°	461.4	463.2	464.6	469.3	472.7
150°	479.1	480.0	480.9	480.9	481.3
152.5°	493.6	495.0	495.4	496.3	494.1
155°	509.1	509.1	509.5	511.3	508.2
157.5°	522.2	521.8	522.2	524.0	521.3
160°	534.5	533.6	533.6	535.9	534.0
162.5°	545.4	544.0	544.5	546.8	543.6
165°	554.5	553.1	553.1	555.8	552.7
167.5°	562.2	560.4	560.8	563.6	560.8
170°	568.6	566.7	566.7	569.9	566.7
172.5°	573.5	571.7	571.7	574.5	571.3
175°	576.7	574.9	574.9	577.6	574.5
177.5°	578.5	576.7	576.7	579.5	576.3
180°	578.1	578.1	578.1	578.1	578.1

(END OF REPORT)