

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: P1031889

Luminaire Tested: S123DIW-B775D1320UB40-4F0-XX-W2A-F

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1031889
REPORT IS A COMBINATION OF REPORTS P991959 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIW-B775D1320UB40-4F0-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

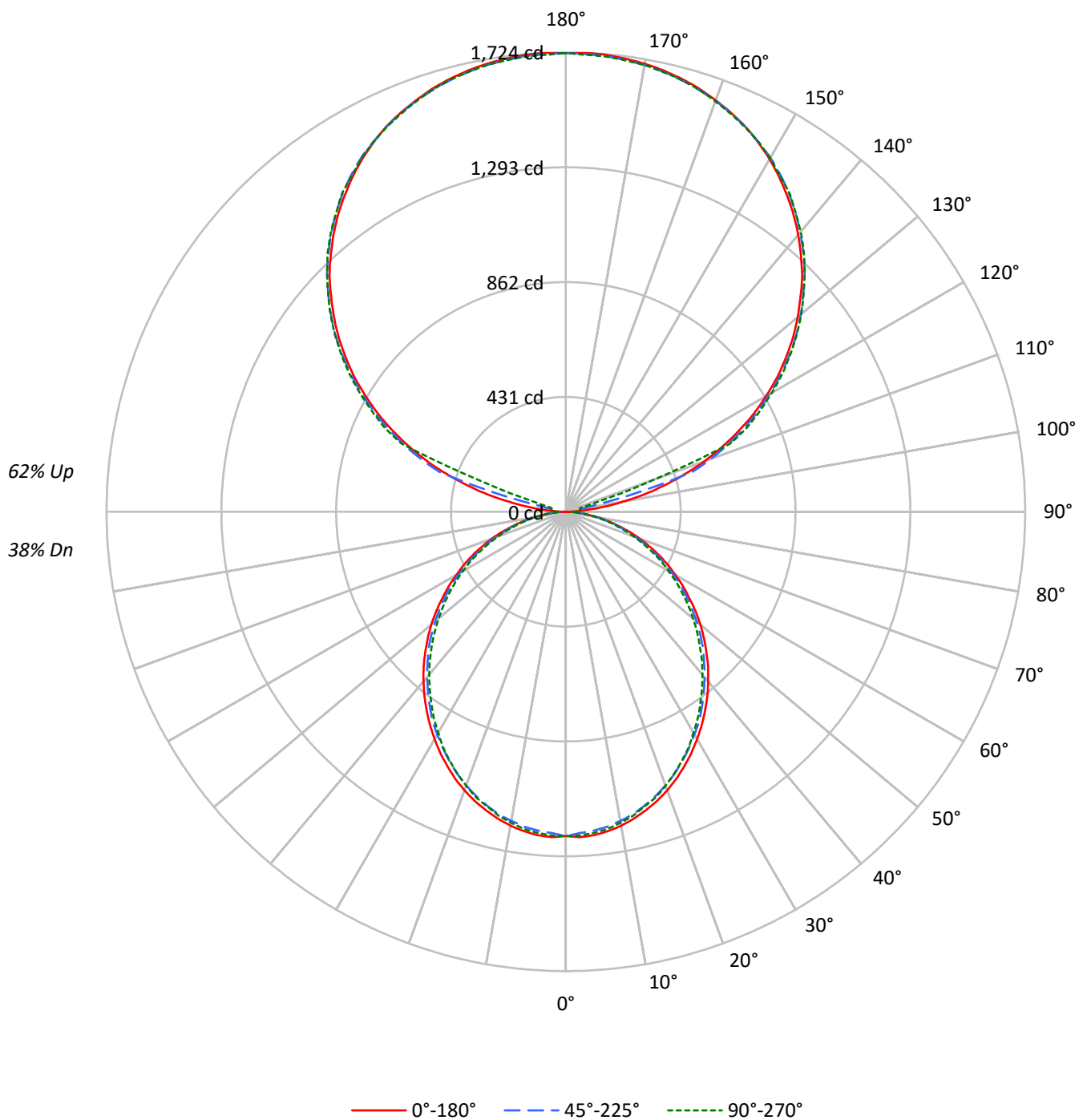
Lumens per Lamp: N/A
Luminaire Lumens: 8420.0 lumens
Efficiency: N/A
Efficacy: 107.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 78
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: P1031889

CATALOG NUMBER: S123DIW-B775D1320UB40-4F0-XX-W2A-F

Luminous Intensity Polar Plot



TEST NUMBER: P1031889

CATALOG NUMBER: S123DIW-B775D1320UB40-4F0-XX-W2A-F

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	104	104	104	104	95	95	95	95	76	76	76	60	60	60	45	45	45	38		
1	95	91	87	83	86	82	79	76	67	65	63	53	51	50	39	39	38	32		
2	86	79	73	68	78	72	67	62	59	55	52	46	44	41	35	33	32	26		
3	79	70	62	57	71	63	57	52	52	47	43	41	38	35	31	29	27	22		
4	72	61	54	48	65	56	49	44	46	41	37	36	33	30	27	25	23	19		
5	66	55	47	41	60	50	43	38	41	36	32	33	29	26	25	22	20	17		
6	61	49	41	35	55	45	38	33	37	32	28	29	26	23	22	20	18	15		
7	56	44	36	31	51	40	33	29	33	28	24	27	23	20	20	18	16	13		
8	52	40	32	27	47	37	30	25	30	25	21	24	21	18	19	16	14	12		
9	48	36	29	24	44	33	27	22	28	23	19	22	19	16	17	15	13	10		
10	45	33	26	21	41	31	24	20	25	21	17	21	17	14	16	13	12	9		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13103	13103	13103
5°	13135	12651	12631
10°	13018	12222	12097
15°	12837	11777	11514
20°	12630	11282	10937
25°	12361	10762	10320
30°	12067	10221	9670
35°	11760	9669	9025
40°	11437	9091	8391
45°	11083	8527	7728
50°	10723	7898	7063
55°	10259	7243	6387
60°	9783	6520	5671
65°	9336	5738	4922
70°	8693	4872	4048
75°	7764	3858	3143
80°	6705	2712	2223
85°	5225	1456	1113

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11083 cd/sqm

TEST NUMBER: P1031889

CATALOG NUMBER: S123DIW-B775D1320UB40-4F0-XX-W2A-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.8	1.4
10°-20°	324.0	3.8
20°-30°	478.6	5.7
30°-40°	558.9	6.6
40°-50°	561.9	6.7
50°-60°	493.6	5.9
60°-70°	367.6	4.4
70°-80°	209.2	2.5
80°-90°	62.9	0.7
90°-100°	60.7	0.7
100°-110°	293.5	3.5
110°-120°	719.3	8.5
120°-130°	913.1	10.8
130°-140°	975.5	11.6
140°-150°	912.2	10.8
150°-160°	735.8	8.7
160°-170°	474.8	5.6
170°-180°	163.6	1.9
0°-30°	917.4	10.9
0°-40°	1476.3	17.5
0°-60°	2531.7	30.1
0°-90°	3171.5	37.7
90°-120°	1073.6	12.8
90°-150°	3874.4	46.0
90°-180°	5249.0	62.3
0°-180°	8420.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1217	1217	1217	1217	1217	
5°	1218	1213	1202	1212	1210	116
15°	1160	1156	1142	1150	1144	327
25°	1053	1047	1033	1034	1031	485
35°	911	904	891	884	879	570
45°	746	742	728	716	711	576
55°	566	565	552	540	535	507
65°	386	381	370	362	359	381
75°	204	200	197	192	188	218
85°	54	52	52	50	50	58
90°	1	14	31	36	38	8
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	

TEST NUMBER: P1031889

CATALOG NUMBER: S123DIW-B775D1320UB40-4F0-XX-W2A-F

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1217.3	1217.3	1217.3	1217.3	1217.3
2.5°	1222.5	1218.3	1206.8	1217.3	1216.2
5°	1218.3	1213.1	1201.6	1212.0	1209.9
7.5°	1208.9	1203.7	1192.1	1201.6	1200.5
10°	1196.3	1191.1	1177.5	1186.9	1184.8
12.5°	1179.6	1175.4	1162.8	1169.1	1168.1
15°	1159.7	1155.5	1141.9	1150.3	1144.0
17.5°	1137.7	1132.5	1118.9	1125.2	1123.1
20°	1112.6	1106.3	1092.7	1096.9	1093.8
22.5°	1084.3	1078.1	1064.5	1067.6	1063.4
25°	1052.9	1046.7	1033.1	1034.1	1031.0
27.5°	1020.5	1014.2	999.6	1000.6	997.5
30°	984.9	979.7	965.0	965.0	957.7
32.5°	949.3	942.0	931.5	924.2	921.1
35°	910.6	904.3	890.7	884.4	879.2
37.5°	871.9	863.5	849.9	842.6	839.4
40°	831.0	824.8	810.1	801.7	797.6
42.5°	790.2	782.9	768.2	759.9	755.7
45°	746.3	742.1	728.5	715.9	710.7
47.5°	703.4	697.1	684.5	672.0	667.8
50°	659.4	654.2	640.6	629.0	622.8
52.5°	613.3	610.2	595.5	586.1	579.8
55°	566.2	565.2	551.6	540.1	534.8
57.5°	522.3	518.1	507.6	497.2	490.9
60°	474.1	473.1	460.5	451.1	445.9
62.5°	431.2	428.1	415.5	406.1	403.0
65°	386.2	381.0	370.5	362.1	359.0
67.5°	338.1	333.9	325.5	318.2	314.0
70°	295.2	288.9	282.6	275.3	270.0
72.5°	250.2	246.0	238.6	232.4	230.3
75°	204.1	199.9	196.8	191.5	188.4
77.5°	163.3	161.2	157.0	152.8	152.8
80°	123.5	120.4	118.3	117.2	117.2
82.5°	84.8	84.8	84.8	82.7	81.6
85°	54.4	52.3	52.3	50.2	50.2
87.5°	27.2	24.1	23.0	22.0	22.0
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

TEST NUMBER: P1031889

CATALOG NUMBER: S123DIW-B775D1320UB40-4F0-XX-W2A-F

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)