Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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: P1031485

Luminaire Tested: S123DIW-B1165D1535UB40-4F0-XX-W2A-F1

Issue Date: 5/6/2025

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Test Information

Test Method:	LM-79-2019
Report Number:	P1031485
	REPORT IS A COMBINATION OF REPORTS P991036 AND P1007351
Test Lab:	INNOVATION CENTER
Issue Date:	5/6/2025
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	NEO-RAY
Catalog Number:	S123DIW-B1165D1535UB40-4F0-XX-W2A-F1
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:	10111.0 lumens
Efficiency:	N/A
Efficacy:	89.1 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:	General Diffuse

Input Watts (W):	113.5
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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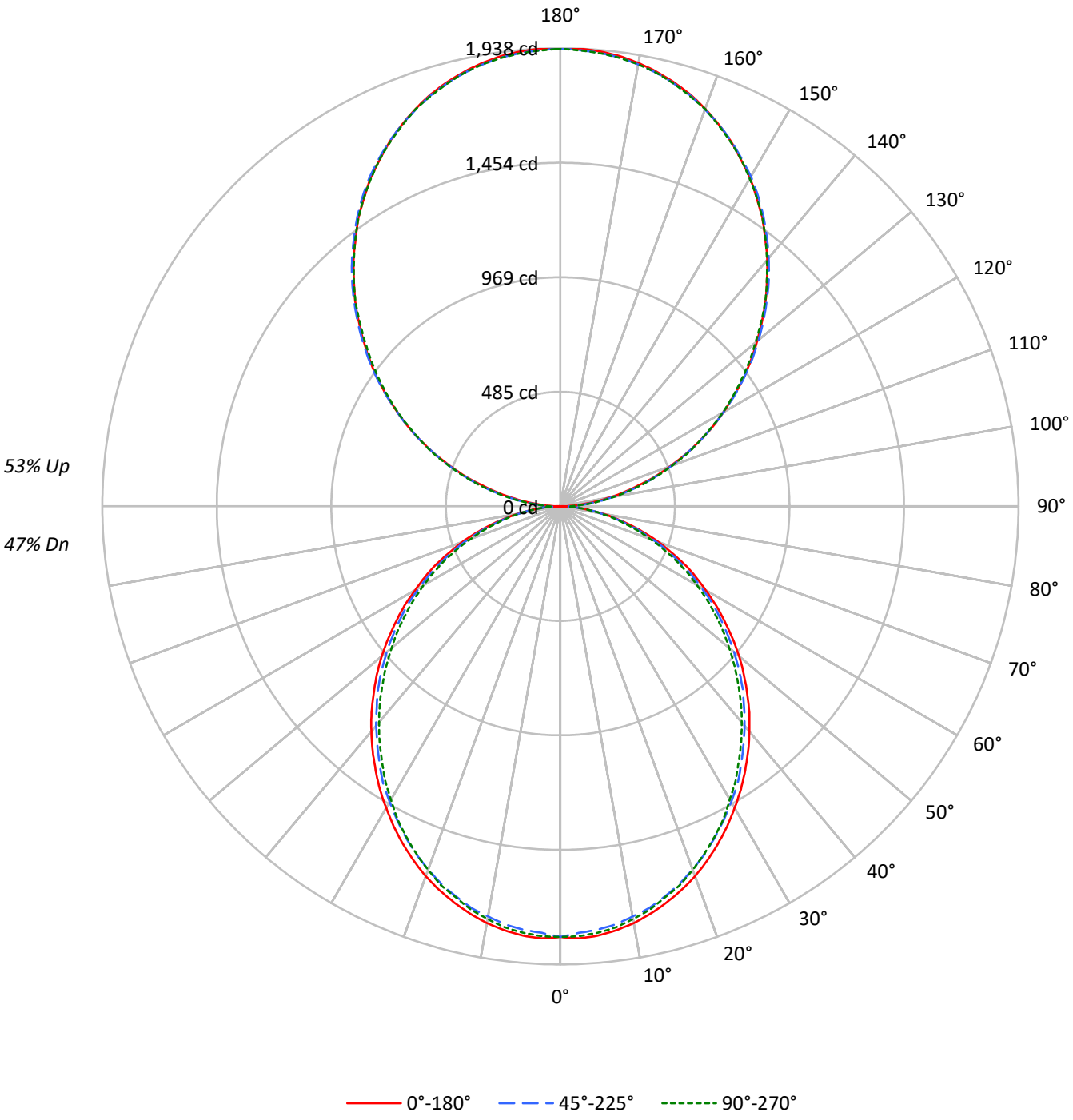
Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			20
RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	106	106	106	106	98	98	98	98	82	82	82	67	67	67	53	53	53	47
1	97	93	89	85	89	85	82	79	71	69	67	59	57	56	47	46	45	39
2	88	81	75	70	81	75	69	65	63	59	55	52	49	46	41	39	38	33
3	81	71	64	58	74	66	59	54	55	50	46	46	42	39	37	34	32	28
4	74	63	55	49	67	58	51	46	49	44	40	41	37	34	33	30	28	24
5	68	56	48	42	62	52	45	39	44	38	34	36	32	29	29	26	24	21
6	62	50	42	36	57	46	39	34	39	34	30	33	29	25	27	24	21	18
7	58	45	37	32	53	42	35	30	36	30	26	30	26	22	24	21	19	16
8	53	41	33	28	49	38	31	26	33	27	23	27	23	20	22	19	17	14
9	50	37	30	25	46	35	28	24	30	24	21	25	21	18	21	18	15	13
10	46	34	27	22	43	32	25	21	27	22	19	23	19	16	19	16	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19609	19609	19609
5°	19657	18932	18903
10°	19482	18290	18103
15°	19211	17624	17231
20°	18900	16885	16366
25°	18500	16105	15444
30°	18059	15296	14471
35°	17598	14471	13506
40°	17117	13605	12557
45°	16586	12761	11565
50°	16047	11819	10569
55°	15354	10839	9560
60°	14642	9758	8486
65°	13972	8588	7366
70°	13008	7290	6059
75°	11617	5773	4703
80°	10033	4057	3326
85°	7828	2180	1667

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 16586 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.7	1.7
10°-20°	484.9	4.8
20°-30°	716.2	7.1
30°-40°	836.4	8.3
40°-50°	840.9	8.3
50°-60°	738.7	7.3
60°-70°	550.1	5.4
70°-80°	313.1	3.1
80°-90°	93.1	0.9
90°-100°	124.7	1.2
100°-110°	377.3	3.7
110°-120°	642.3	6.4
120°-130°	845.1	8.4
130°-140°	949.9	9.4
140°-150°	933.8	9.2
150°-160°	786.2	7.8
160°-170°	523.4	5.2
170°-180°	183.3	1.8
0°-30°	1372.8	13.6
0°-40°	2209.3	21.9
0°-60°	3788.8	37.5
0°-90°	4745.1	46.9
90°-120°	1144.3	11.3
90°-150°	3873.1	38.3
90°-180°	5366.0	53.1
0°-180°	10111.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1822	1822	1822	1822	1822	
5°	1823	1815	1798	1814	1811	173
15°	1736	1729	1709	1721	1712	489
25°	1576	1566	1546	1548	1543	726
35°	1363	1353	1333	1324	1316	853
45°	1117	1110	1090	1071	1064	862
55°	847	846	826	808	800	759
65°	578	570	554	542	537	570
75°	305	299	294	287	282	326
85°	82	78	78	75	75	87
90°	2	17	36	43	46	12
95°	90	100	113	119	119	99
105°	342	345	359	359	362	366
115°	646	651	648	650	648	640
125°	946	951	948	942	936	844
135°	1228	1237	1235	1229	1226	946
145°	1489	1492	1497	1495	1489	930
155°	1705	1705	1707	1713	1702	785
165°	1858	1853	1853	1862	1851	524
175°	1932	1926	1926	1935	1924	184
180°	1937	1937	1937	1937	1937	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1821.7	1821.7	1821.7	*1821.7*	1821.7
2.5°	1829.5	1823.2	1806.0	*1821.7*	1820.1
5°	1823.2	1815.4	1798.2	*1813.8*	1810.7
7.5°	1809.1	1801.3	1784.1	*1798.2*	1796.6
10°	1790.3	1782.5	1762.1	*1776.2*	1773.1
12.5°	1765.3	1759.0	1740.2	*1749.6*	1748.1
15°	1735.5	1729.3	1708.9	*1721.4*	1712.0
17.5°	1702.6	1694.8	1674.4	*1683.8*	1680.7
20°	1665.0	1655.6	1635.3	*1641.5*	1636.8
22.5°	1622.7	1613.3	1593.0	*1597.7*	1591.4
25°	1575.8	1566.4	1546.0	*1547.6*	1542.9
27.5°	1527.2	1517.8	1495.9	*1497.4*	1492.7
30°	1473.9	1466.1	1444.2	*1444.2*	1433.2
32.5°	1420.7	1409.7	1394.1	*1383.1*	1378.4
35°	1362.7	1353.3	1333.0	*1323.6*	1315.7
37.5°	1304.8	1292.2	1271.9	*1260.9*	1256.2
40°	1243.7	1234.3	1212.4	*1199.8*	1193.6
42.5°	1182.6	1171.6	1149.7	*1137.2*	1130.9
45°	1116.8	1110.5	1090.2	*1071.4*	1063.6
47.5°	1052.6	1043.2	1024.4	*1005.6*	999.3
50°	986.8	979.0	958.6	*941.4*	932.0
52.5°	917.9	913.2	891.3	*877.2*	867.8
55°	847.4	845.8	825.5	*808.2*	800.4
57.5°	781.6	775.3	759.7	*744.0*	734.6
60°	709.6	708.0	689.2	*675.1*	667.3
62.5°	645.3	640.6	621.8	*607.7*	603.0
65°	578.0	570.2	554.5	*542.0*	537.3
67.5°	505.9	499.7	487.1	*476.2*	469.9
70°	441.7	432.3	422.9	*412.0*	404.1
72.5°	374.4	368.1	357.1	*347.7*	344.6
75°	305.4	299.2	294.5	*286.6*	281.9
77.5°	244.4	241.2	235.0	*228.7*	228.7
80°	184.8	180.1	177.0	*175.4*	175.4
82.5°	126.9	126.9	126.9	*123.7*	122.2
85°	81.5	78.3	78.3	*75.2*	75.2
87.5°	40.7	36.0	34.5	*32.9*	32.9
90°	1.5	16.7	36.5	*42.6*	45.6
92.5°	45.6	54.8	63.9	*68.5*	65.4
95°	89.8	100.4	112.6	*118.7*	118.7
97.5°	147.6	155.2	164.3	*171.9*	170.4
100°	206.9	216.0	223.6	*228.2*	231.2
102.5°	275.4	279.9	290.6	*295.1*	293.6
105°	342.3	345.3	359.0	*359.0*	362.1
107.5°	421.4	422.9	429.0	*433.6*	432.0
110°	494.4	497.5	500.5	*506.6*	503.5

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	570.5	572.0	572.0	*579.6*	579.6
115°	646.5	651.1	648.1	*649.6*	648.1
117.5°	724.1	725.6	722.6	*722.6*	718.0
120°	795.6	804.8	797.1	*795.6*	792.6
122.5°	870.2	876.3	873.2	*868.6*	864.1
125°	946.2	950.8	947.8	*941.7*	935.6
127.5°	1016.2	1025.3	1022.3	*1013.2*	1007.1
130°	1086.2	1098.4	1093.8	*1087.7*	1077.1
132.5°	1156.2	1168.3	1165.3	*1157.7*	1150.1
135°	1227.7	1236.8	1235.3	*1229.2*	1226.1
137.5°	1293.1	1300.7	1305.3	*1297.6*	1293.1
140°	1361.5	1369.1	1370.7	*1369.1*	1358.5
142.5°	1423.9	1431.5	1434.6	*1433.0*	1425.4
145°	1489.3	1492.4	1496.9	*1495.4*	1489.3
147.5°	1545.6	1551.7	1556.3	*1556.3*	1547.1
150°	1604.9	1608.0	1611.0	*1611.0*	1601.9
152.5°	1653.6	1658.2	1659.7	*1662.7*	1655.1
155°	1705.3	1705.3	1706.9	*1713.0*	1702.3
157.5°	1749.5	1747.9	1749.5	*1755.5*	1746.4
160°	1790.5	1787.5	1787.5	*1795.1*	1789.0
162.5°	1827.0	1822.5	1824.0	*1831.6*	1821.0
165°	1857.5	1852.9	1852.9	*1862.0*	1851.4
167.5°	1883.3	1877.2	1878.8	*1887.9*	1878.8
170°	1904.6	1898.5	1898.5	*1909.2*	1898.5
172.5°	1921.4	1915.3	1915.3	*1924.4*	1913.8
175°	1932.0	1925.9	1925.9	*1935.1*	1924.4
177.5°	*1938.1*	*1932.0*	*1932.0*	*1941.1*	*1930.5*
180°	1936.6	1936.6	1936.6	*1936.6*	1936.6

(END OF REPORT)