

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: P1059138

Luminaire Tested: S123RDR-S1165D930-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059138
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S1165D930-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

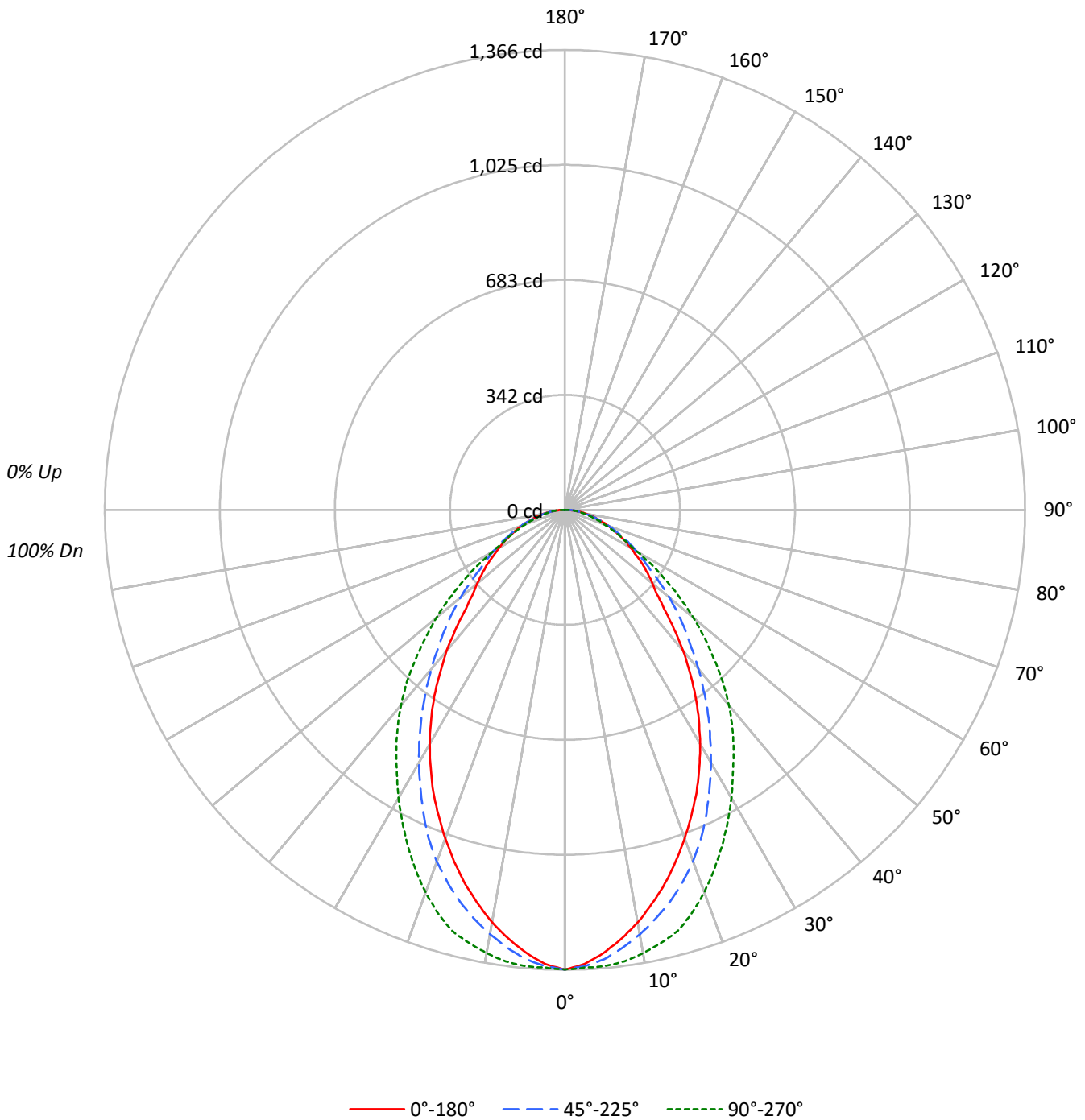
Lumens per Lamp: N/A
Luminaire Lumens: 2399.5 lumens
Efficiency: N/A
Efficacy: 57.4 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
Input Voltage (V): 120
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: P1059138

CATALOG NUMBER: S123RDR-S1165D930-X4F0-XX-UDD-WVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1059138

CATALOG NUMBER: S123RDR-S1165D930-X4F0-XX-UDD-WVL-W

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16034	16034	16034
5°	15570	15791	16040
10°	14839	15259	15945
15°	13957	14643	15743
20°	12981	13892	15110
25°	11982	12881	14282
30°	10882	11760	13400
35°	9686	10612	12516
40°	8359	9456	11601
45°	6908	8371	10401
50°	6204	7384	9081
55°	5751	6303	7530
60°	5298	5740	5768
65°	4929	5190	4832
70°	4638	4721	4237
75°	4374	4210	3734
80°	4132	3814	3496
85°	3961	4271	3961

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10401 cd/sqm



TEST NUMBER: P1059138

CATALOG NUMBER: S123RDR-S1165D930-X4F0-XX-UDD-WVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.5	5.3
10°-20°	340.7	14.2
20°-30°	460.9	19.2
30°-40°	473.7	19.7
40°-50°	397.8	16.6
50°-60°	285.2	11.9
60°-70°	181.6	7.6
70°-80°	99.8	4.2
80°-90°	33.3	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	928.1	38.7
0°-40°	1401.8	58.4
0°-60°	2084.8	86.9
0°-90°	2399.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2399.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1366	1366	1366	1366	1366	
5°	1321	1344	1340	1349	1361	124
15°	1148	1180	1204	1256	1295	322
25°	925	960	994	1048	1102	424
35°	676	712	740	806	873	420
45°	416	452	504	577	626	328
55°	281	287	308	349	368	251
65°	177	188	187	176	174	177
75°	96	106	93	86	82	102
85°	29	31	32	33	29	32
90°	0	0	0	0	0	



TEST NUMBER: P1059138

CATALOG NUMBER: S123RDR-S1165D930-X4F0-XX-UDD-WVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1365.5	1365.5	1365.5	1365.5	1365.5
2.5°	1350.2	1369.0	1356.1	1357.3	1360.8
5°	1320.9	1344.4	1339.7	1349.1	1360.8
7.5°	1284.4	1310.3	1311.5	1333.8	1352.6
10°	1244.5	1271.5	1279.7	1313.8	1337.3
12.5°	1197.5	1226.8	1244.5	1286.8	1317.3
15°	1148.1	1179.8	1204.5	1256.2	1295.0
17.5°	1094.1	1128.1	1159.9	1215.1	1255.0
20°	1038.8	1075.3	1111.7	1163.4	1209.2
22.5°	981.2	1018.8	1056.5	1107.0	1157.5
25°	924.8	960.1	994.2	1048.2	1102.3
27.5°	863.7	900.2	929.5	989.5	1045.9
30°	802.6	839.1	867.3	929.5	988.3
32.5°	739.2	776.8	802.6	867.3	928.4
35°	675.7	712.1	740.3	806.1	873.1
37.5°	608.7	648.7	676.9	750.9	816.7
40°	545.3	582.9	616.9	694.5	756.8
42.5°	479.5	518.2	557.0	636.9	694.5
45°	416.0	452.4	504.1	577.0	626.3
47.5°	370.2	393.7	453.6	514.7	561.7
50°	339.6	349.0	404.2	458.3	497.1
52.5°	309.1	316.1	353.7	403.1	432.5
55°	280.9	286.7	307.9	349.0	367.8
57.5°	250.3	256.2	273.8	297.3	307.9
60°	225.6	230.3	244.4	248.0	245.6
62.5°	200.9	208.0	215.1	206.8	203.3
65°	177.4	188.0	186.8	176.3	173.9
67.5°	156.3	166.9	161.0	150.4	146.9
70°	135.1	145.7	137.5	126.9	123.4
72.5°	115.2	126.9	114.0	104.6	102.2
75°	96.4	105.8	92.8	85.8	82.3
77.5°	78.7	85.8	74.0	68.2	65.8
80°	61.1	65.8	56.4	52.9	51.7
82.5°	44.7	47.0	41.1	43.5	42.3
85°	29.4	30.6	31.7	32.9	29.4
87.5°	14.1	20.0	20.0	18.8	15.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)