

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: P1059462

Luminaire Tested: S123RDR-H1000D930-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059462
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-H1000D930-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

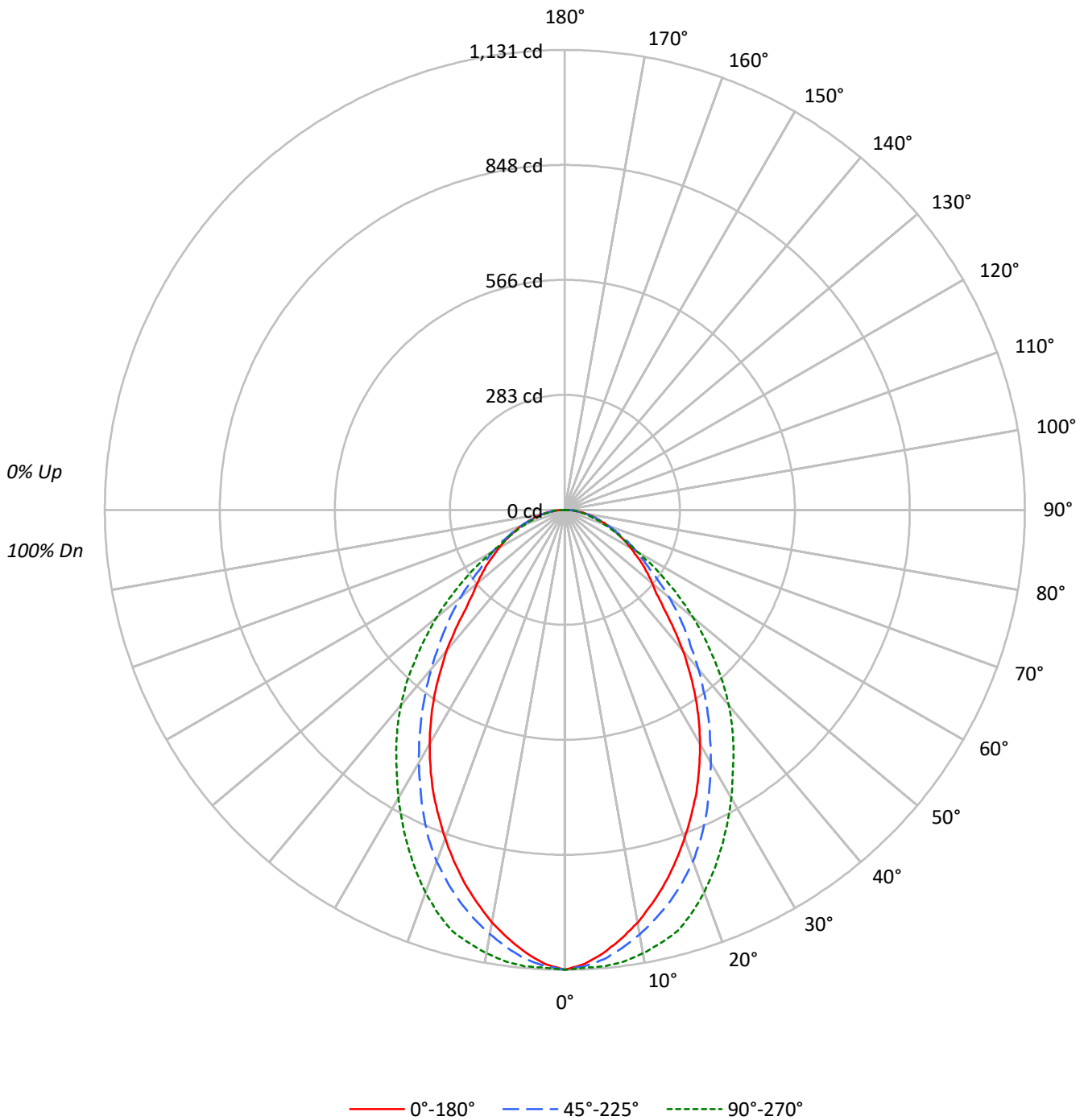
Lumens per Lamp: N/A
Luminaire Lumens: 1986.9 lumens
Efficiency: N/A
Efficacy: 63.7 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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: P1059462

CATALOG NUMBER: S123RDR-H1000D930-X4F0-XX-UDD-WVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1059462

CATALOG NUMBER: S123RDR-H1000D930-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°	13277	13277	13277
5°	12893	13076	13282
10°	12287	12635	13204
15°	11557	12125	13036
20°	10749	11503	12512
25°	9922	10666	11827
30°	9011	9737	11097
35°	8020	8787	10364
40°	6921	7831	9606
45°	5721	6933	8614
50°	5137	6114	7519
55°	4762	5218	6236
60°	4387	4753	4777
65°	4082	4298	4001
70°	3842	3910	3509
75°	3620	3489	3090
80°	3422	3158	2894
85°	3274	3543	3274

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8614 cd/sqm



TEST NUMBER: P1059462

CATALOG NUMBER: S123RDR-H1000D930-X4F0-XX-UDD-WVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.7	5.3
10°-20°	282.1	14.2
20°-30°	381.7	19.2
30°-40°	392.2	19.7
40°-50°	329.4	16.6
50°-60°	236.2	11.9
60°-70°	150.4	7.6
70°-80°	82.6	4.2
80°-90°	27.5	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°	768.6	38.7
0°-40°	1160.8	58.4
0°-60°	1726.4	86.9
0°-90°	1986.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1986.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1131	1131	1131	1131	1131	
5°	1094	1113	1109	1117	1127	102
15°	951	977	997	1040	1072	266
25°	766	795	823	868	913	351
35°	560	590	613	668	723	348
45°	344	375	418	478	519	272
55°	233	237	255	289	305	208
65°	147	156	155	146	144	146
75°	80	88	77	71	68	85
85°	24	25	26	27	24	27
90°	0	0	0	0	0	



TEST NUMBER: P1059462

CATALOG NUMBER: S123RDR-H1000D930-X4F0-XX-UDD-WVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1130.7	1130.7	1130.7	1130.7	1130.7
2.5°	1118.1	1133.6	1122.9	1123.9	1126.8
5°	1093.8	1113.2	1109.3	1117.1	1126.8
7.5°	1063.6	1085.0	1086.0	1104.5	1120.0
10°	1030.5	1052.9	1059.7	1087.9	1107.4
12.5°	991.6	1015.9	1030.5	1065.5	1090.8
15°	950.7	977.0	997.4	1040.2	1072.3
17.5°	905.9	934.2	960.4	1006.2	1039.3
20°	860.2	890.4	920.5	963.4	1001.3
22.5°	812.5	843.7	874.8	916.7	958.5
25°	765.8	795.0	823.2	868.0	912.8
27.5°	715.2	745.4	769.7	819.3	866.1
30°	664.6	694.8	718.1	769.7	818.4
32.5°	612.1	643.2	664.6	718.1	768.7
35°	559.5	589.7	613.0	667.5	723.0
37.5°	504.1	537.1	560.5	621.8	676.3
40°	451.5	482.7	510.9	575.1	626.7
42.5°	397.0	429.1	461.2	527.4	575.1
45°	344.5	374.6	417.5	477.8	518.7
47.5°	306.5	326.0	375.6	426.2	465.1
50°	281.2	289.0	334.7	379.5	411.6
52.5°	255.9	261.8	292.9	333.8	358.1
55°	232.6	237.4	254.9	289.0	304.6
57.5°	207.3	212.1	226.7	246.2	254.9
60°	186.8	190.7	202.4	205.3	203.4
62.5°	166.4	172.2	178.1	171.3	168.3
65°	146.9	155.7	154.7	146.0	144.0
67.5°	129.4	138.2	133.3	124.6	121.6
70°	111.9	120.7	113.9	105.1	102.2
72.5°	95.4	105.1	94.4	86.6	84.7
75°	79.8	87.6	76.9	71.0	68.1
77.5°	65.2	71.0	61.3	56.4	54.5
80°	50.6	54.5	46.7	43.8	42.8
82.5°	37.0	38.9	34.1	36.0	35.0
85°	24.3	25.3	26.3	27.2	24.3
87.5°	11.7	16.5	16.5	15.6	12.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059462
 CATALOG NUMBER: S123RDR-H1000D930-X4F0-XX-UDD-WVL-W

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	16.17	17.63	16.53	17.95	18.26	17.24	18.70	17.60	19.02	19.33
	3H	17.87	19.18	18.25	19.51	19.87	18.32	19.63	18.70	19.96	20.33
	4H	18.52	19.75	18.92	20.10	20.48	18.73	19.95	19.13	20.30	20.68
	6H	19.02	20.16	19.44	20.53	20.92	19.04	20.17	19.45	20.54	20.93
	8H	19.20	20.28	19.62	20.67	21.07	19.17	20.25	19.60	20.64	21.04
	12H	19.32	20.35	19.75	20.74	21.17	19.29	20.32	19.72	20.70	21.13
4H	2H	16.77	18.00	17.17	18.35	18.73	17.64	18.87	18.04	19.22	19.60
	3H	18.70	19.72	19.11	20.12	20.52	18.96	19.98	19.37	20.38	20.78
	4H	19.51	20.43	19.94	20.84	21.28	19.48	20.40	19.91	20.81	21.25
	6H	20.16	20.95	20.62	21.40	21.86	19.91	20.71	20.37	21.15	21.61
	8H	20.38	21.12	20.85	21.57	22.04	20.10	20.85	20.57	21.29	21.76
	12H	20.55	21.22	21.04	21.70	22.17	20.28	20.95	20.77	21.43	21.90
8H	4H	19.75	20.49	20.21	20.94	21.41	19.73	20.47	20.19	20.91	21.38
	6H	20.54	21.15	21.03	21.64	22.12	20.27	20.89	20.77	21.38	21.86
	8H	20.85	21.40	21.36	21.91	22.40	20.55	21.10	21.07	21.61	22.10
	12H	21.12	21.61	21.63	22.10	22.66	20.84	21.33	21.35	21.82	22.39
12H	4H	19.76	20.42	20.24	20.90	21.38	19.75	20.42	20.23	20.90	21.37
	6H	20.57	21.12	21.09	21.63	22.12	20.33	20.88	20.84	21.39	21.88
	8H	20.95	21.43	21.46	21.93	22.49	20.67	21.16	21.18	21.65	22.21