

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: P1059531

Luminaire Tested: S123RDR-H1165D927-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059531
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H1165D927-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

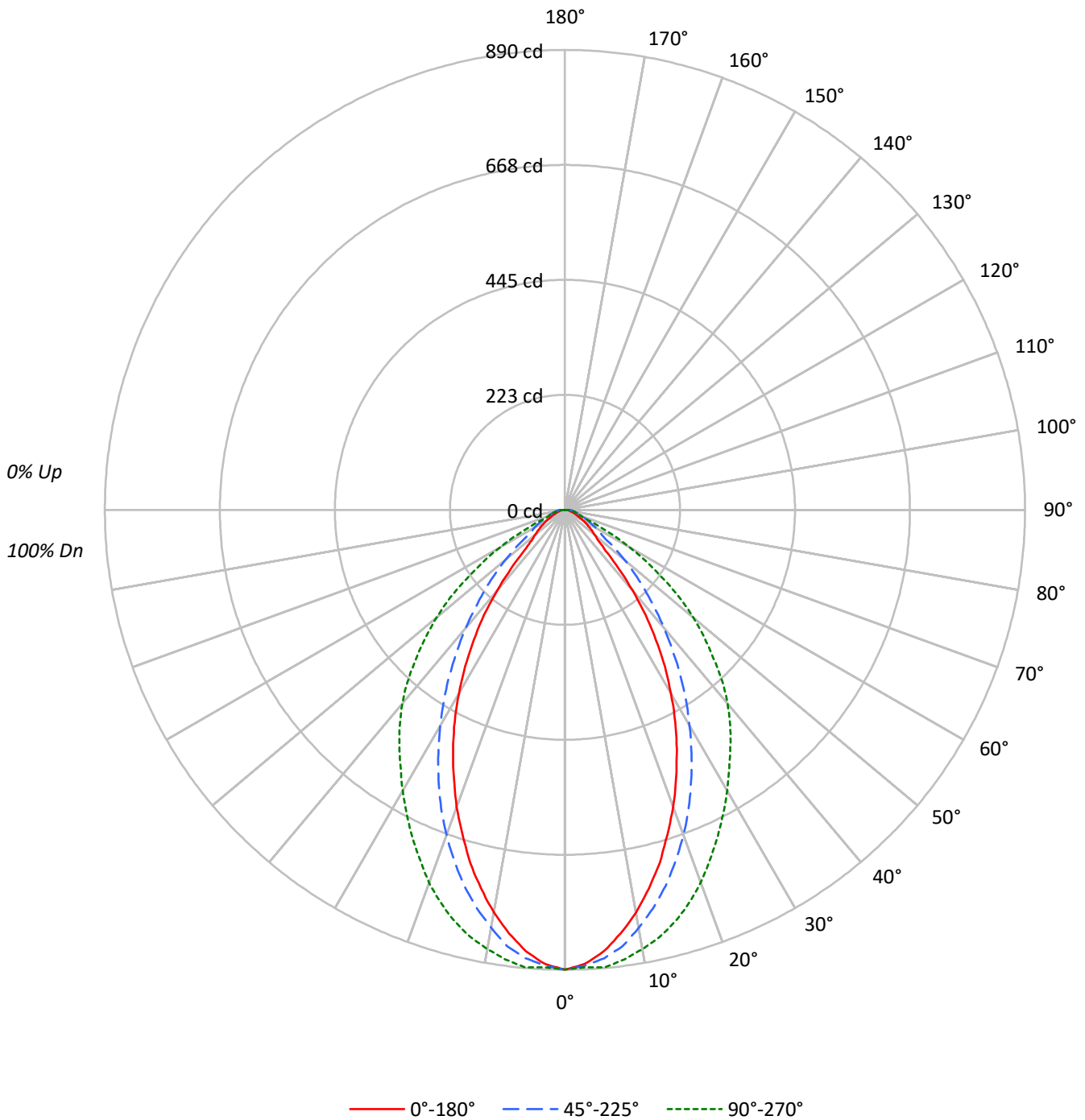
Lumens per Lamp: N/A
Luminaire Lumens: 1194.4 lumens
Efficiency: N/A
Efficacy: 32.7 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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: P1059531

CATALOG NUMBER: S123RDR-H1165D927-X4F0-XX-UDD-SVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1059531

CATALOG NUMBER: S123RDR-H1165D927-X4F0-XX-UDD-SVL-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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89				89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79				79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64				64
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58				58
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52				52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48				48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44				44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40				40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10447	10447	10447
5°	10110	10266	10474
10°	9435	9792	10292
15°	8598	9150	10023
20°	7651	8370	9598
25°	6630	7489	9050
30°	5559	6534	8512
35°	4405	5560	8000
40°	3118	4574	7505
45°	1835	3615	6754
50°	1374	2746	5915
55°	1155	1855	4752
60°	935	1583	3375
65°	736	1350	1781
70°	645	1178	1102
75°	603	1102	1053
80°	595	1197	1048
85°	741	1792	1334

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6754 cd/sqm



TEST NUMBER: P1059531

CATALOG NUMBER: S123RDR-H1165D927-X4F0-XX-UDD-SVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.9	6.9
10°-20°	212.8	17.8
20°-30°	271.0	22.7
30°-40°	254.9	21.3
40°-50°	183.6	15.4
50°-60°	106.0	8.9
60°-70°	48.5	4.1
70°-80°	24.2	2.0
80°-90°	11.5	1.0
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°	565.7	47.4
0°-40°	820.6	68.7
0°-60°	1110.2	93.0
0°-90°	1194.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1194.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	890	890	890	890	890	
5°	858	872	871	880	889	80
15°	707	733	753	795	824	197
25°	512	538	578	642	698	234
35°	307	334	388	478	558	191
45°	110	138	218	327	407	93
55°	56	59	91	172	232	51
65°	26	38	49	54	64	27
75°	13	25	24	23	23	14
85°	6	12	13	12	10	6
90°	0	0	0	0	0	



TEST NUMBER: P1059531

CATALOG NUMBER: S123RDR-H1165D927-X4F0-XX-UDD-SVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	889.7	889.7	889.7	889.7	889.7
2.5°	879.8	890.8	883.1	884.2	886.4
5°	857.7	872.0	870.9	879.8	888.6
7.5°	826.7	843.3	852.1	865.4	877.5
10°	791.3	810.1	821.2	845.5	863.2
12.5°	750.4	774.8	789.1	821.2	846.6
15°	707.3	732.8	752.7	794.7	824.5
17.5°	658.7	686.3	711.8	761.5	798.0
20°	612.3	638.8	669.8	723.9	768.1
22.5°	561.5	590.2	625.6	683.0	732.8
25°	511.7	538.2	578.0	642.1	698.5
27.5°	462.0	488.5	530.5	601.2	663.1
30°	410.0	437.7	481.9	560.3	627.8
32.5°	359.2	385.7	435.5	520.6	591.3
35°	307.3	333.8	387.9	477.5	558.1
37.5°	256.4	284.0	341.5	442.1	525.0
40°	203.4	233.2	298.4	405.6	489.6
42.5°	153.6	185.7	255.3	368.0	450.9
45°	110.5	138.2	217.7	327.1	406.7
47.5°	86.2	100.6	183.5	285.1	365.8
50°	75.2	77.4	150.3	246.5	323.8
52.5°	65.2	67.4	118.3	210.0	279.6
55°	56.4	58.6	90.6	172.4	232.1
57.5°	47.5	50.8	75.2	137.0	186.8
60°	39.8	44.2	67.4	105.0	143.7
62.5°	32.1	39.8	57.5	77.4	102.8
65°	26.5	37.6	48.6	54.2	64.1
67.5°	22.1	34.3	40.9	38.7	37.6
70°	18.8	30.9	34.3	30.9	32.1
72.5°	15.5	28.7	28.7	26.5	26.5
75°	13.3	25.4	24.3	23.2	23.2
77.5°	11.1	22.1	21.0	19.9	18.8
80°	8.8	17.7	17.7	16.6	15.5
82.5°	7.7	14.4	14.4	14.4	12.2
85°	5.5	12.2	13.3	12.2	9.9
87.5°	4.4	11.1	11.1	9.9	6.6
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059531
 CATALOG NUMBER: S123RDR-H1165D927-X4F0-XX-UDD-SVL-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	8.12	9.44	8.48	9.75	10.06	15.48	16.80	15.85	17.12	17.43
	3H	9.51	10.68	9.89	11.01	11.37	15.71	16.88	16.09	17.21	17.58
	4H	10.06	11.15	10.47	11.50	11.89	15.83	16.92	16.23	17.27	17.65
	6H	10.50	11.50	10.91	11.87	12.26	15.94	16.95	16.36	17.32	17.71
	8H	10.67	11.62	11.10	12.01	12.42	16.00	16.95	16.43	17.34	17.74
	12H	10.83	11.74	11.26	12.12	12.55	16.06	16.96	16.49	17.35	17.78
4H	2H	9.22	10.31	9.62	10.66	11.04	15.44	16.53	15.84	16.88	17.27
	3H	10.88	11.77	11.29	12.18	12.58	15.80	16.70	16.22	17.10	17.50
	4H	11.69	12.49	12.13	12.91	13.35	16.00	16.80	16.43	17.22	17.66
	6H	12.33	13.02	12.79	13.47	13.93	16.23	16.92	16.69	17.36	17.83
	8H	12.56	13.21	13.03	13.66	14.13	16.33	16.98	16.80	17.42	17.90
	12H	12.78	13.35	13.26	13.83	14.30	16.46	17.03	16.95	17.51	17.99
8H	4H	12.13	12.78	12.60	13.23	13.70	16.04	16.68	16.51	17.13	17.60
	6H	13.05	13.58	13.55	14.07	14.55	16.37	16.90	16.87	17.39	17.87
	8H	13.47	13.94	13.99	14.46	14.95	16.56	17.03	17.08	17.55	18.04
	12H	13.88	14.31	14.40	14.80	15.37	16.81	17.23	17.32	17.72	18.29
12H	4H	12.19	12.76	12.68	13.25	13.72	16.03	16.60	16.51	17.08	17.55
	6H	13.18	13.66	13.70	14.17	14.67	16.38	16.86	16.90	17.37	17.87
	8H	13.72	14.14	14.24	14.64	15.21	16.64	17.06	17.15	17.56	18.13