

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: P1059533

Luminaire Tested: S123RDR-H1165D927-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059533
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H1165D927-X4F0-XX-UDD-WVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

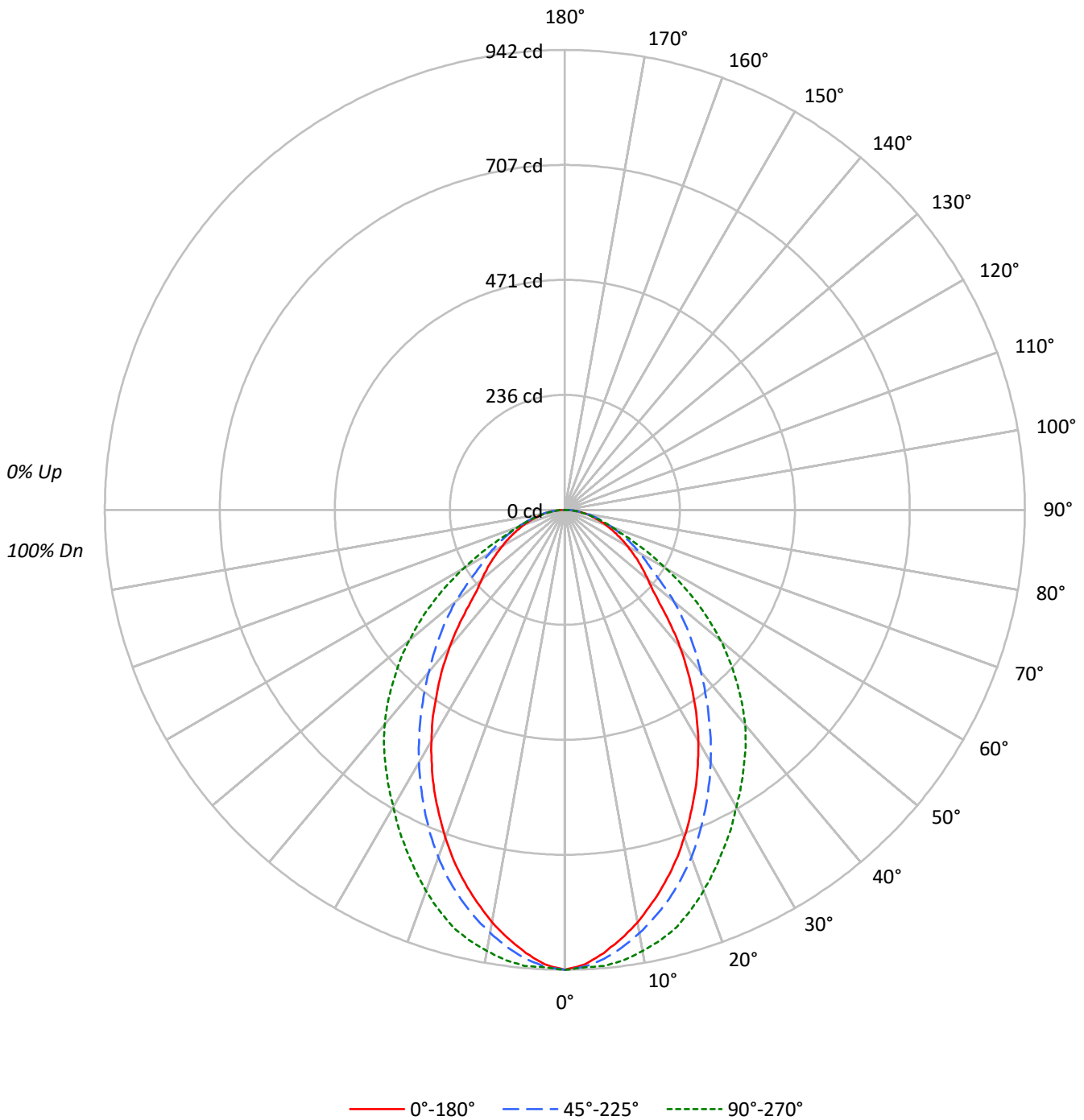
Lumens per Lamp: N/A
Luminaire Lumens: 1701.7 lumens
Efficiency: N/A
Efficacy: 46.6 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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: P1059533

CATALOG NUMBER: S123RDR-H1165D927-X4F0-XX-UDD-WVL-S

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	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	100	100	100	100	100														
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87	87	87	87	87														
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75	75	75	75	75	75	75														
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65	65	65	65	65	65	65														
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57	57	57	57	57	57	57														
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51	51	51	51	51	51	51														
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45	45	45	45	45	45	45														
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41	41	41	41	41	41	41														
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37	37	37	37	37	37	37														
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34	34	34	34	34	34	34														
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31	31	31	31	31	31	31														

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11063	11063	11063
5°	10741	10883	11053
10°	10232	10495	10943
15°	9613	10029	10755
20°	8930	9467	10378
25°	8199	8800	9945
30°	7413	8102	9524
35°	6538	7362	9167
40°	5621	6636	8803
45°	4622	5978	8253
50°	4055	5327	7607
55°	3753	4545	6737
60°	3450	4176	5578
65°	3223	3837	4387
70°	3035	3488	3488
75°	2858	3208	3008
80°	2691	2915	2543
85°	2533	2829	1940

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8253 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.1	5.1
10°-20°	233.5	13.7
20°-30°	316.6	18.6
30°-40°	331.0	19.5
40°-50°	287.1	16.9
50°-60°	213.6	12.6
60°-70°	137.1	8.1
70°-80°	73.5	4.3
80°-90°	22.2	1.3
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°	637.3	37.4
0°-40°	968.3	56.9
0°-60°	1469.0	86.3
0°-90°	1701.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1701.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	942	942	942	942	942	
5°	911	927	923	930	938	85
15°	791	810	825	858	885	222
25°	633	653	679	724	768	290
35°	456	478	514	579	640	285
45°	278	299	360	437	497	219
55°	183	188	222	285	329	164
65°	116	126	138	147	158	115
75°	63	73	71	67	66	67
85°	19	23	21	18	14	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	942.1	942.1	942.1	942.1	942.1
2.5°	932.1	945.4	936.6	936.6	937.7
5°	911.2	926.6	923.3	929.9	937.7
7.5°	885.8	902.3	903.4	918.9	929.9
10°	858.1	874.7	880.2	902.3	917.8
12.5°	825.0	843.8	853.7	881.3	903.4
15°	790.8	809.5	825.0	858.1	884.7
17.5°	754.3	773.1	793.0	830.5	859.2
20°	714.6	734.4	757.6	795.2	830.5
22.5°	673.7	694.7	719.0	759.9	799.6
25°	632.8	652.7	679.2	724.5	767.6
27.5°	589.8	610.8	638.4	688.1	736.7
30°	546.7	567.7	597.5	650.5	702.4
32.5°	502.5	523.5	555.5	615.2	671.5
35°	456.1	478.2	513.6	578.7	639.5
37.5°	412.0	432.9	472.7	544.5	608.5
40°	366.7	388.8	432.9	510.2	574.3
42.5°	322.5	344.6	396.5	473.8	536.8
45°	278.3	299.3	360.0	437.4	497.0
47.5°	244.1	259.5	325.8	398.7	458.3
50°	222.0	227.5	291.6	361.1	416.4
52.5°	202.1	206.5	254.0	323.6	373.3
55°	183.3	187.8	222.0	284.9	329.1
57.5°	164.6	170.1	197.7	245.2	284.9
60°	146.9	153.5	177.8	209.8	237.5
62.5°	131.4	139.2	157.9	177.8	196.6
65°	116.0	125.9	138.1	146.9	157.9
67.5°	101.6	112.7	119.3	121.5	122.6
70°	88.4	99.4	101.6	101.6	101.6
72.5°	75.1	87.3	85.0	83.9	82.8
75°	63.0	72.9	70.7	67.4	66.3
77.5°	50.8	59.6	56.3	54.1	50.8
80°	39.8	46.4	43.1	40.9	37.6
82.5°	29.8	34.2	30.9	28.7	25.4
85°	18.8	23.2	21.0	17.7	14.4
87.5°	9.9	13.3	11.0	9.9	5.5
90°	0.0	0.0	0.0	0.0	0.0



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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	15.14	16.62	15.50	16.93	17.25	17.89	19.38	18.26	19.69	20.00
	3H	16.85	18.18	17.23	18.50	18.87	18.91	20.24	19.29	20.57	20.93
	4H	17.51	18.75	17.91	19.10	19.48	19.28	20.52	19.68	20.87	21.25
	6H	18.01	19.16	18.42	19.53	19.92	19.53	20.68	19.95	21.05	21.44
	8H	18.19	19.28	18.61	19.67	20.07	19.60	20.70	20.03	21.09	21.49
	12H	18.31	19.36	18.75	19.74	20.17	19.64	20.69	20.07	21.07	21.50
4H	2H	15.91	17.16	16.31	17.51	17.89	18.16	19.41	18.56	19.76	20.14
	3H	17.84	18.87	18.25	19.27	19.67	19.42	20.45	19.83	20.85	21.25
	4H	18.65	19.58	19.08	19.99	20.43	19.91	20.83	20.34	21.25	21.69
	6H	19.29	20.10	19.75	20.54	21.00	20.29	21.09	20.74	21.54	22.00
	8H	19.52	20.27	19.98	20.72	21.19	20.40	21.15	20.86	21.60	22.07
	12H	19.69	20.36	20.17	20.84	21.32	20.47	21.14	20.95	21.62	22.09
8H	4H	18.97	19.72	19.43	20.17	20.64	20.10	20.85	20.56	21.30	21.76
	6H	19.76	20.39	20.26	20.88	21.36	20.59	21.21	21.08	21.70	22.18
	8H	20.09	20.65	20.60	21.16	21.65	20.76	21.32	21.28	21.83	22.32
	12H	20.37	20.86	20.88	21.35	21.92	20.89	21.39	21.40	21.88	22.45
12H	4H	18.99	19.67	19.48	20.15	20.62	20.11	20.79	20.59	21.26	21.74
	6H	19.81	20.38	20.33	20.89	21.38	20.62	21.18	21.14	21.69	22.18
	8H	20.21	20.70	20.72	21.20	21.76	20.85	21.35	21.36	21.84	22.41