

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: P1058238

Luminaire Tested: S122RDR-H1005D927-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058238
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H1005D927-X4F0-XX-UDD-WVL-W
Description: DEFINE 2 WHITE 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

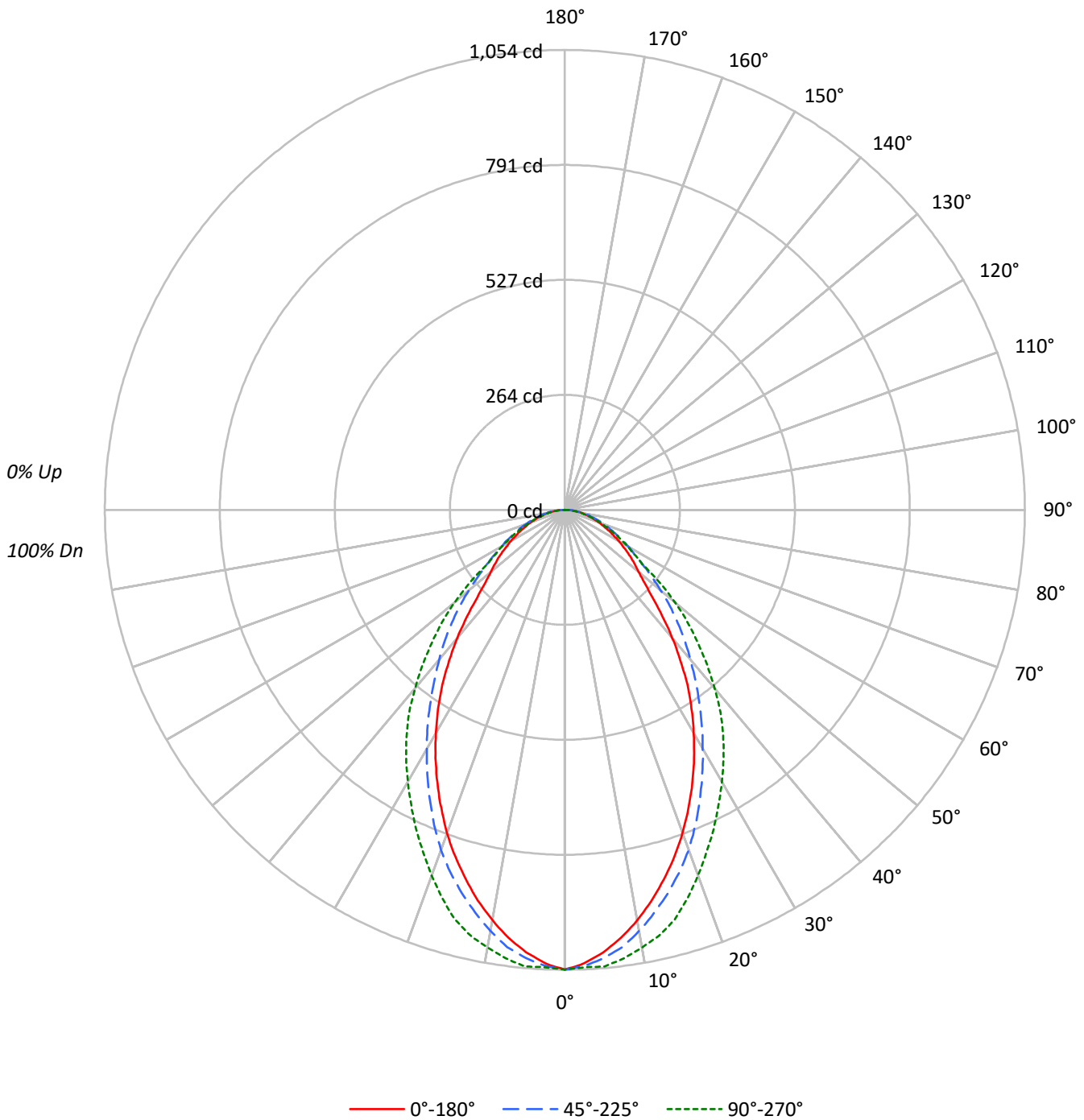
Lumens per Lamp: N/A
Luminaire Lumens: 1717.9 lumens
Efficiency: N/A
Efficacy: 47.1 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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: P1058238

CATALOG NUMBER: S122RDR-H1005D927-X4F0-XX-UDD-WVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1058238

CATALOG NUMBER: S122RDR-H1005D927-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	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59
5	81	70	62	56	80	69	62	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36
10	59	47	40	35	58	46	39	35	46	39	35	45	39	35	44	38	34	33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19443	19443	19443
5°	18847	19099	19455
10°	17896	18364	19086
15°	16754	17380	18570
20°	15486	16287	17510
25°	14071	14902	16424
30°	12578	13470	15330
35°	11027	12072	14241
40°	9226	10779	12856
45°	7393	9551	11234
50°	6341	8230	9433
55°	5797	6997	6962
60°	5270	6189	6063
65°	4798	5541	5292
70°	4402	5071	4705
75°	4121	4684	4121
80°	3857	4336	3613
85°	3832	4552	3112

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 11234 cd/sqm

TEST NUMBER: P1058238

CATALOG NUMBER: S122RDR-H1005D927-X4F0-XX-UDD-WVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.3	5.7
10°-20°	257.5	15.0
20°-30°	339.7	19.8
30°-40°	342.0	19.9
40°-50°	278.4	16.2
50°-60°	189.8	11.0
60°-70°	123.2	7.2
70°-80°	67.8	3.9
80°-90°	22.1	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°	694.5	40.4
0°-40°	1036.5	60.3
0°-60°	1504.7	87.6
0°-90°	1717.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1717.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1054	1054	1054	1054	1054	
5°	1018	1037	1031	1040	1050	95
15°	877	900	910	947	972	246
25°	691	714	732	765	807	317
35°	490	514	536	582	632	304
45°	283	318	366	398	430	223
55°	180	198	218	219	216	161
65°	110	130	127	120	121	109
75°	58	71	66	59	58	61
85°	18	24	22	17	15	20
90°	0	0	0	0	0	



TEST NUMBER: P1058238

CATALOG NUMBER: S122RDR-H1005D927-X4F0-XX-UDD-WVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1053.7	1053.7	1053.7	1053.7	1053.7
2.5°	1040.1	1057.1	1045.8	1046.9	1049.2
5°	1017.5	1036.7	1031.1	1040.1	1050.3
7.5°	989.1	1008.4	1010.7	1024.3	1036.7
10°	955.1	976.7	980.1	1000.5	1018.6
12.5°	917.8	941.5	946.1	975.5	999.3
15°	877.0	899.6	909.8	947.2	972.1
17.5°	833.9	855.4	871.3	905.3	933.6
20°	788.6	809.0	829.4	860.0	891.7
22.5°	739.9	762.5	781.8	812.4	848.6
25°	691.1	713.8	731.9	764.8	806.7
27.5°	641.3	664.0	682.1	717.2	762.5
30°	590.3	614.1	632.2	671.9	719.5
32.5°	540.5	564.2	584.6	626.6	676.4
35°	489.5	514.4	535.9	582.4	632.2
37.5°	435.1	463.4	490.6	537.1	585.8
40°	383.0	414.7	447.5	490.6	533.7
42.5°	330.8	366.0	406.8	443.0	482.7
45°	283.3	318.4	366.0	397.7	430.5
47.5°	245.9	275.3	326.3	352.4	381.8
50°	220.9	241.3	286.7	307.0	328.6
52.5°	200.5	217.5	249.3	262.9	274.2
55°	180.2	198.3	217.5	218.7	216.4
57.5°	159.8	180.2	190.3	182.4	186.9
60°	142.8	163.2	167.7	159.8	164.3
62.5°	124.6	147.3	147.3	139.4	141.6
65°	109.9	130.3	126.9	120.1	121.2
67.5°	95.2	115.6	109.9	103.1	103.1
70°	81.6	100.8	94.0	87.2	87.2
72.5°	69.1	85.0	80.4	72.5	71.4
75°	57.8	71.4	65.7	58.9	57.8
77.5°	46.5	57.8	53.3	47.6	45.3
80°	36.3	46.5	40.8	36.3	34.0
82.5°	27.2	35.1	30.6	26.1	23.8
85°	18.1	23.8	21.5	17.0	14.7
87.5°	9.1	15.9	13.6	11.3	9.1
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058238
 CATALOG NUMBER: S122RDR-H1005D927-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	17.03	18.47	17.40	18.78	19.10	17.28	18.71	17.64	19.03	19.34
	3H	18.56	19.85	18.94	20.17	20.54	18.63	19.92	19.01	20.25	20.61
	4H	19.12	20.33	19.52	20.68	21.06	19.11	20.32	19.52	20.67	21.05
	6H	19.55	20.66	19.96	21.03	21.42	19.46	20.57	19.88	20.94	21.34
	8H	19.70	20.76	20.13	21.15	21.55	19.57	20.63	20.00	21.02	21.42
	12H	19.81	20.82	20.24	21.20	21.63	19.64	20.65	20.07	21.03	21.46
4H	2H	17.60	18.81	18.00	19.16	19.54	17.80	19.00	18.20	19.35	19.73
	3H	19.41	20.40	19.82	20.81	21.21	19.37	20.37	19.79	20.77	21.18
	4H	20.15	21.05	20.58	21.46	21.90	19.97	20.86	20.40	21.28	21.72
	6H	20.74	21.51	21.19	21.96	22.42	20.44	21.22	20.90	21.66	22.12
	8H	20.95	21.67	21.41	22.12	22.59	20.59	21.32	21.05	21.76	22.23
	12H	21.11	21.76	21.59	22.24	22.71	20.70	21.35	21.18	21.83	22.30
8H	4H	20.41	21.14	20.88	21.59	22.06	20.26	20.99	20.72	21.43	21.90
	6H	21.17	21.77	21.67	22.26	22.74	20.85	21.45	21.35	21.94	22.42
	8H	21.49	22.03	22.01	22.55	23.04	21.07	21.61	21.59	22.12	22.61
	12H	21.78	22.25	22.29	22.75	23.31	21.25	21.73	21.77	22.23	22.79
12H	4H	20.43	21.08	20.91	21.56	22.03	20.29	20.94	20.78	21.42	21.89
	6H	21.21	21.76	21.73	22.27	22.76	20.92	21.46	21.43	21.97	22.46
	8H	21.61	22.09	22.12	22.58	23.15	21.20	21.68	21.71	22.17	22.74