

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: P1058205

Luminaire Tested: S122RDR-H1005D835-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058205
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H1005D835-X4F0-XX-UDD-BVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

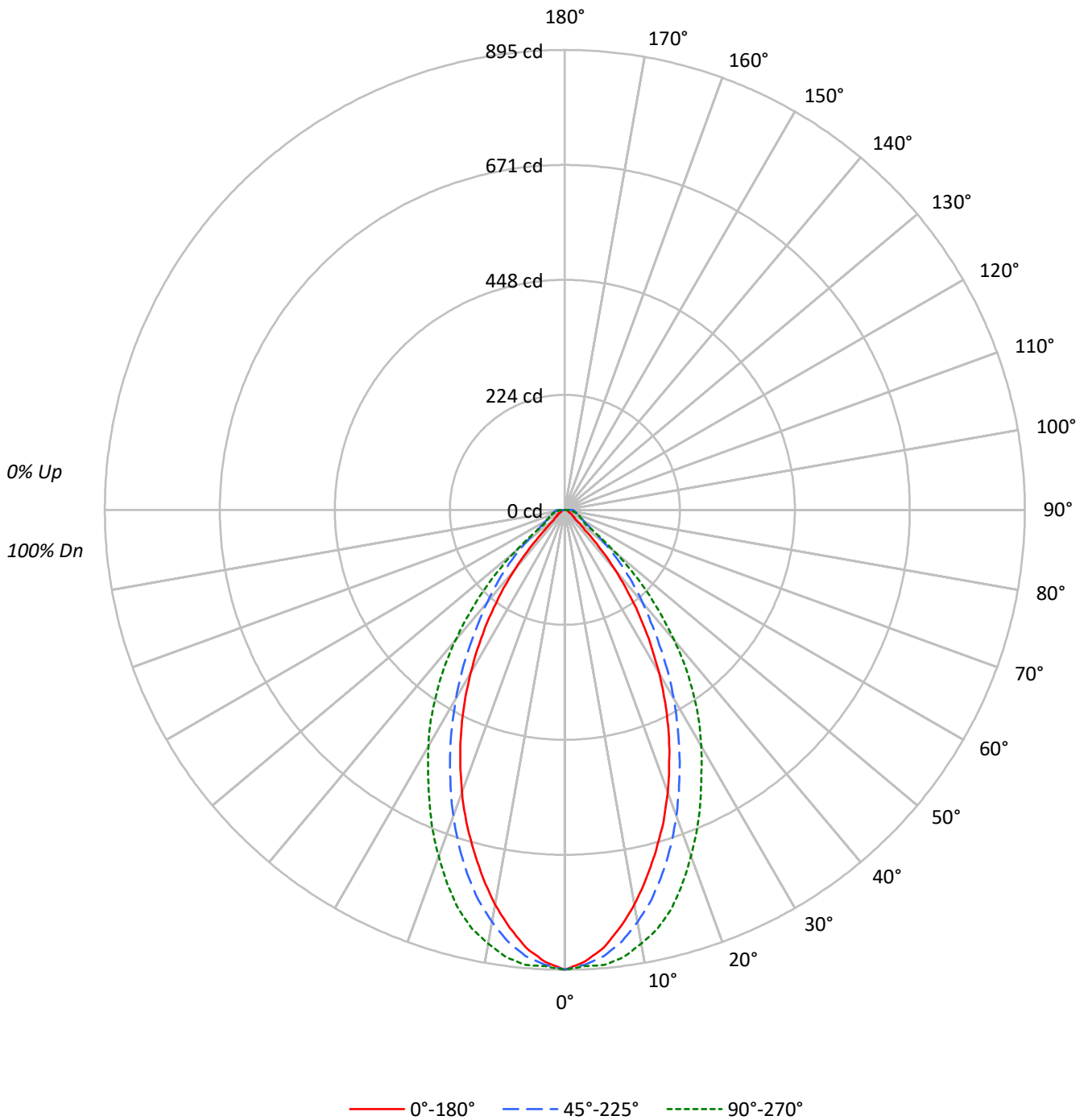
Lumens per Lamp: N/A
Luminaire Lumens: 973.8 lumens
Efficiency: N/A
Efficacy: 26.7 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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: P1058205

CATALOG NUMBER: S122RDR-H1005D835-X4F0-XX-UDD-BVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1058205

CATALOG NUMBER: S122RDR-H1005D835-X4F0-XX-UDD-BVL-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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16509	16509	16509
5°	15856	16148	16465
10°	14619	15261	16065
15°	13099	14001	15342
20°	11497	12452	14083
25°	9734	10754	12707
30°	7809	9028	11316
35°	5771	7222	9803
40°	3620	5656	7966
45°	1420	4259	5903
50°	698	2876	3617
55°	553	1888	1612
60°	424	1532	1480
65°	314	1436	1436
70°	388	1467	1467
75°	406	1633	1533
80°	606	2125	1668
85°	1207	3642	2435

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 6642 cd/sqm



TEST NUMBER: P1058205

CATALOG NUMBER: S122RDR-H1005D835-X4F0-XX-UDD-BVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.7	8.4
10°-20°	206.6	21.2
20°-30°	247.1	25.4
30°-40°	208.0	21.4
40°-50°	118.4	12.2
50°-60°	46.7	4.8
60°-70°	29.4	3.0
70°-80°	21.9	2.2
80°-90°	13.9	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°	535.4	55.0
0°-40°	743.5	76.3
0°-60°	908.6	93.3
0°-90°	973.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	973.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	895	895	895	895	895	
5°	856	875	872	882	889	79
15°	686	710	733	776	803	191
25°	478	500	528	583	624	218
35°	256	279	321	389	435	159
45°	54	96	163	205	226	51
55°	17	37	59	60	50	15
65°	7	33	33	32	33	8
75°	6	23	23	22	22	6
85°	6	16	17	16	12	5
90°	0	0	0	0	0	



TEST NUMBER: P1058205

CATALOG NUMBER: S122RDR-H1005D835-X4F0-XX-UDD-BVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	894.7	894.7	894.7	894.7	894.7
2.5°	880.4	896.1	886.1	887.5	888.9
5°	856.0	874.6	871.8	881.8	888.9
7.5°	820.2	840.3	847.4	864.6	877.5
10°	780.2	803.1	814.5	841.7	857.4
12.5°	734.3	760.1	777.3	811.6	834.5
15°	685.7	710.0	732.9	775.9	803.1
17.5°	637.0	661.3	685.7	732.9	761.5
20°	585.5	608.4	634.1	684.2	717.2
22.5°	531.1	555.4	581.2	632.7	672.8
25°	478.1	499.6	528.2	582.6	624.1
27.5°	422.3	443.8	475.2	531.1	575.5
30°	366.5	387.9	423.7	481.0	531.1
32.5°	310.6	333.5	372.2	435.2	485.3
35°	256.2	279.1	320.6	389.4	435.2
37.5°	203.3	229.0	274.8	342.1	385.1
40°	150.3	180.4	234.8	294.9	330.7
42.5°	100.2	137.4	197.5	247.6	277.7
45°	54.4	95.9	163.2	204.7	226.2
47.5°	30.1	61.6	130.3	163.2	176.1
50°	24.3	42.9	100.2	124.5	126.0
52.5°	20.0	38.6	74.4	88.8	81.6
55°	17.2	37.2	58.7	60.1	50.1
57.5°	14.3	35.8	48.7	42.9	42.9
60°	11.5	35.8	41.5	38.6	40.1
62.5°	8.6	35.8	37.2	34.4	35.8
65°	7.2	32.9	32.9	31.5	32.9
67.5°	7.2	30.1	30.1	28.6	30.1
70°	7.2	28.6	27.2	27.2	27.2
72.5°	5.7	25.8	25.8	24.3	24.3
75°	5.7	22.9	22.9	21.5	21.5
77.5°	5.7	21.5	21.5	20.0	18.6
80°	5.7	18.6	20.0	18.6	15.7
82.5°	5.7	17.2	18.6	17.2	12.9
85°	5.7	15.7	17.2	15.7	11.5
87.5°	4.3	15.7	15.7	12.9	8.6
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058205
 CATALOG NUMBER: S122RDR-H1005D835-X4F0-XX-UDD-BVL-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	7.44	8.66	7.80	8.97	9.28	9.45	10.67	9.82	10.98	11.30
	3H	8.98	10.07	9.36	10.40	10.76	11.43	12.51	11.81	12.84	13.21
	4H	9.54	10.55	9.94	10.90	11.28	12.34	13.36	12.75	13.71	14.09
	6H	10.09	11.02	10.51	11.39	11.79	13.22	14.15	13.64	14.53	14.92
	8H	10.38	11.26	10.81	11.65	12.06	13.63	14.51	14.06	14.90	15.31
	12H	10.74	11.58	11.17	11.96	12.40	14.07	14.92	14.51	15.30	15.73
4H	2H	8.62	9.63	9.02	9.98	10.37	10.07	11.08	10.47	11.43	11.82
	3H	10.82	11.66	11.24	12.06	12.46	12.32	13.15	12.73	13.56	13.96
	4H	11.87	12.62	12.31	13.04	13.49	13.39	14.14	13.83	14.56	15.01
	6H	12.77	13.42	13.23	13.86	14.33	14.50	15.15	14.96	15.60	16.06
	8H	13.15	13.76	13.62	14.21	14.68	15.02	15.63	15.50	16.08	16.55
	12H	13.57	14.11	14.06	14.59	15.06	15.60	16.14	16.09	16.62	17.10
8H	4H	12.68	13.28	13.15	13.73	14.20	13.89	14.49	14.36	14.94	15.41
	6H	14.06	14.55	14.56	15.05	15.53	15.28	15.78	15.78	16.27	16.76
	8H	14.78	15.22	15.30	15.74	16.23	16.02	16.47	16.54	16.98	17.48
	12H	15.52	15.92	16.04	16.41	16.99	16.85	17.25	17.37	17.74	18.32
12H	4H	12.84	13.37	13.33	13.86	14.33	13.99	14.52	14.47	15.00	15.48
	6H	14.39	14.83	14.91	15.35	15.84	15.50	15.94	16.02	16.46	16.95
	8H	15.30	15.70	15.82	16.19	16.76	16.38	16.78	16.90	17.27	17.85