

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: P1058399

Luminaire Tested: S122RDR-H485D927-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058399
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-58)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H485D927-X4F0-XX-UDD-WVL-S
Description: DEFINE 2 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

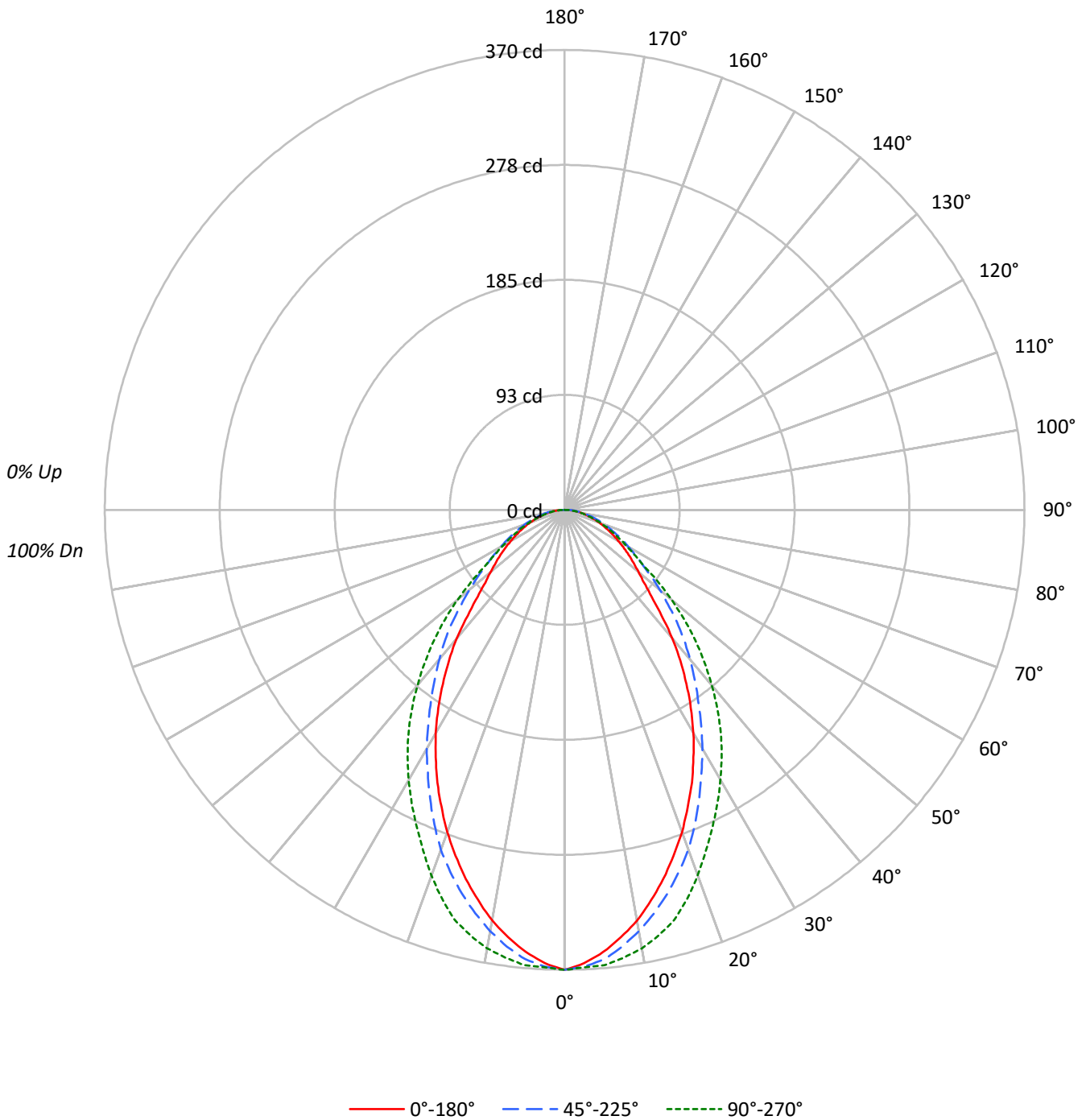
Lumens per Lamp: N/A
Luminaire Lumens: 602.5 lumens
Efficiency: N/A
Efficacy: 34.6 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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

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Luminous Intensity Polar Plot





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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				
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	79	84	80	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66				
4	88	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61	59				
5	81	70	62	56	79	69	61	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	45	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	45	39	35	45	39	34	44	38	34	33				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6827	6827	6827
5°	6615	6724	6813
10°	6288	6449	6712
15°	5869	6104	6524
20°	5420	5714	6148
25°	4931	5214	5729
30°	4417	4726	5344
35°	3847	4221	4936
40°	3247	3777	4437
45°	2578	3335	3880
50°	2219	2868	3221
55°	2020	2455	2471
60°	1842	2181	2100
65°	1690	1969	1851
70°	1565	1824	1651
75°	1454	1725	1454
80°	1371	1658	1318
85°	1355	1715	1143

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3880 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.1	5.7
10°-20°	90.3	15.0
20°-30°	118.8	19.7
30°-40°	119.5	19.8
40°-50°	96.8	16.1
50°-60°	66.7	11.1
60°-70°	43.7	7.2
70°-80°	24.3	4.0
80°-90°	8.2	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°	243.3	40.4
0°-40°	362.7	60.2
0°-60°	526.3	87.4
0°-90°	602.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	602.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	370	370	370	370	370	
5°	357	364	363	365	368	33
15°	307	315	320	331	342	86
25°	242	249	256	267	281	111
35°	171	179	187	204	219	107
45°	99	110	128	139	149	78
55°	63	70	76	78	77	56
65°	39	46	45	43	42	39
75°	20	25	24	22	20	22
85°	6	9	8	7	5	7
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	370.0	370.0	370.0	370.0	370.0
2.5°	365.1	371.6	367.8	367.8	368.4
5°	357.1	364.1	363.0	364.6	367.8
7.5°	346.9	354.4	354.4	359.2	363.5
10°	335.6	343.1	344.2	351.7	358.2
12.5°	321.6	329.2	332.4	342.1	350.6
15°	307.2	314.7	319.5	331.3	341.5
17.5°	291.6	299.1	305.5	317.9	328.1
20°	276.0	283.0	291.0	301.8	313.1
22.5°	258.8	266.3	273.9	284.1	296.9
25°	242.2	248.6	256.1	267.4	281.4
27.5°	224.5	231.4	238.4	251.8	266.3
30°	207.3	214.3	221.8	235.7	250.8
32.5°	189.0	196.5	204.1	219.6	235.2
35°	170.8	178.8	187.4	204.1	219.1
37.5°	153.0	161.6	171.8	189.0	201.9
40°	134.8	143.9	156.8	171.8	184.2
42.5°	115.4	126.7	142.3	155.2	166.5
45°	98.8	110.1	127.8	139.1	148.7
47.5°	86.5	95.6	112.8	122.4	130.5
50°	77.3	84.3	99.9	106.9	112.2
52.5°	69.8	76.8	87.5	92.4	94.0
55°	62.8	69.8	76.3	77.9	76.8
57.5°	55.8	63.4	67.1	65.5	65.5
60°	49.9	58.0	59.1	56.9	56.9
62.5°	44.0	52.1	52.1	49.4	49.4
65°	38.7	46.2	45.1	43.0	42.4
67.5°	33.8	40.8	39.2	37.1	36.5
70°	29.0	35.4	33.8	31.1	30.6
72.5°	24.7	30.6	28.5	26.3	25.2
75°	20.4	25.2	24.2	21.5	20.4
77.5°	16.6	20.4	19.3	17.2	16.1
80°	12.9	16.1	15.6	13.4	12.4
82.5°	9.7	12.4	11.8	10.2	8.6
85°	6.4	8.6	8.1	7.0	5.4
87.5°	3.2	5.9	5.4	4.8	2.7
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	13.41	14.85	13.77	15.16	15.47	13.76	15.20	14.13	15.52	15.83
	3H	14.95	16.24	15.33	16.57	16.93	15.11	16.40	15.49	16.73	17.09
	4H	15.52	16.73	15.92	17.08	17.46	15.59	16.80	15.99	17.15	17.53
	6H	15.95	17.06	16.36	17.43	17.82	15.95	17.06	16.36	17.43	17.82
	8H	16.10	17.16	16.53	17.55	17.95	16.06	17.12	16.49	17.51	17.91
	12H	16.22	17.23	16.65	17.61	18.04	16.14	17.15	16.57	17.53	17.96
4H	2H	13.99	15.20	14.39	15.55	15.93	14.28	15.48	14.68	15.83	16.21
	3H	15.81	16.81	16.22	17.21	17.61	15.85	16.85	16.26	17.25	17.65
	4H	16.56	17.46	16.99	17.87	18.31	16.45	17.35	16.89	17.77	18.21
	6H	17.14	17.93	17.60	18.37	18.83	16.94	17.72	17.40	18.16	18.62
	8H	17.35	18.09	17.82	18.53	19.00	17.10	17.83	17.57	18.28	18.75
	12H	17.52	18.17	18.01	18.65	19.13	17.22	17.87	17.71	18.35	18.83
8H	4H	16.84	17.57	17.31	18.02	18.49	16.75	17.49	17.22	17.93	18.40
	6H	17.60	18.20	18.10	18.69	19.17	17.37	17.98	17.87	18.47	18.95
	8H	17.92	18.47	18.44	18.98	19.47	17.62	18.16	18.14	18.68	19.17
	12H	18.21	18.69	18.72	19.18	19.75	17.83	18.31	18.35	18.81	19.37
12H	4H	16.86	17.51	17.34	17.99	18.46	16.79	17.44	17.27	17.92	18.39
	6H	17.66	18.20	18.17	18.71	19.20	17.45	17.99	17.97	18.50	18.99
	8H	18.06	18.54	18.57	19.03	19.60	17.77	18.25	18.28	18.74	19.31