

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: P1058398

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058398
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)
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-B
Description: DEFINE 2 BLACK 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

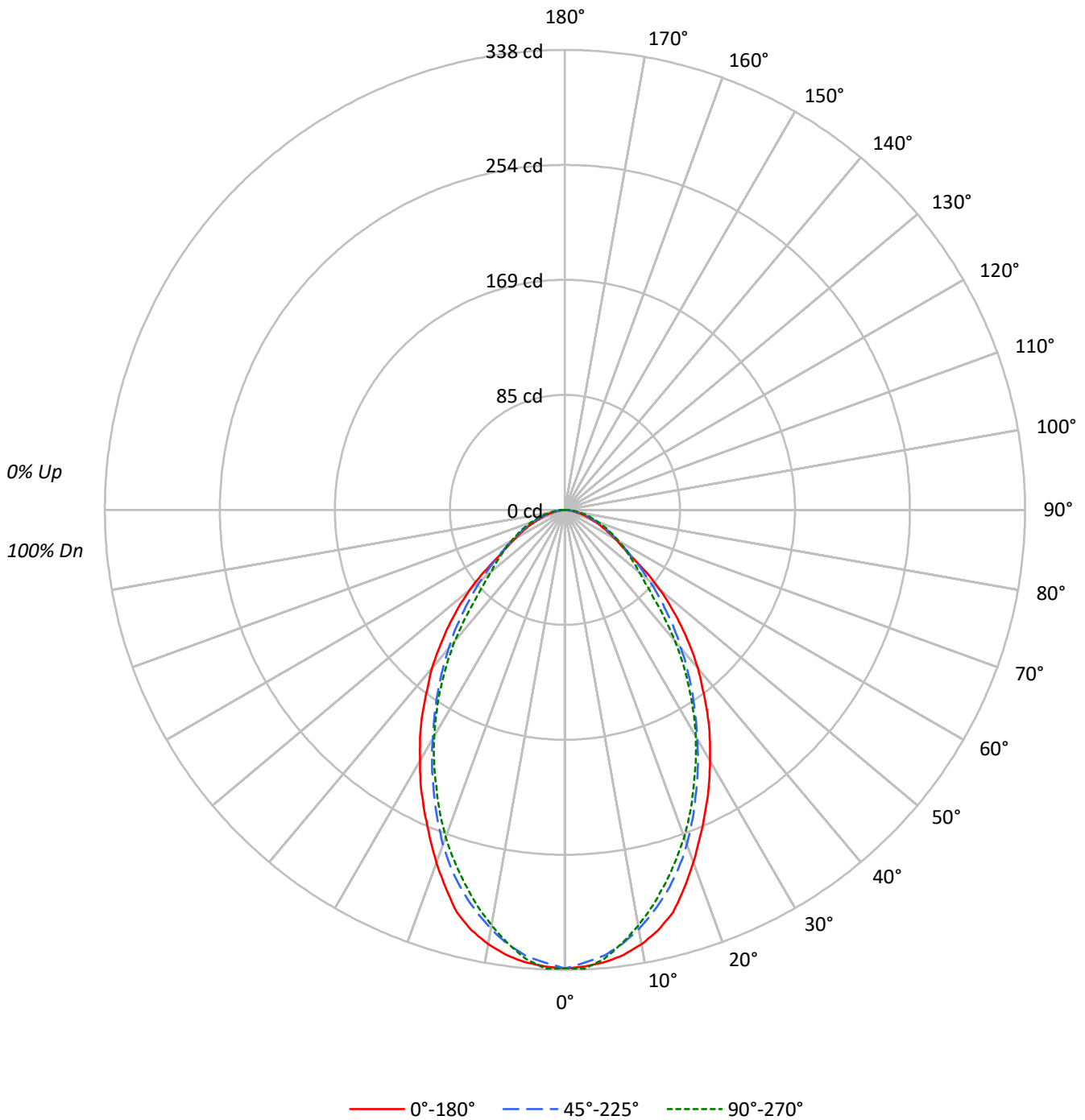
Lumens per Lamp: N/A
Luminaire Lumens: 511.8 lumens
Efficiency: N/A
Efficacy: 29.4 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1058398

CATALOG NUMBER: S122RDR-H485D927-X4F0-XX-UDD-WVL-B

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6218	6218	6218
5°	6183	6092	6133
10°	6073	5861	5812
15°	5853	5546	5433
20°	5416	5143	5027
25°	4972	4644	4557
30°	4538	4138	4093
35°	4109	3663	3577
40°	3659	3192	3025
45°	3150	2745	2422
50°	2604	2311	2032
55°	1882	1917	1831
60°	1565	1642	1664
65°	1336	1428	1524
70°	1101	1273	1392
75°	920	1069	1262
80°	680	850	1137
85°	233	445	1016

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3150 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.1	6.1
10°-20°	82.0	16.0
20°-30°	106.2	20.7
30°-40°	104.1	20.3
40°-50°	82.0	16.0
50°-60°	53.7	10.5
60°-70°	32.7	6.4
70°-80°	16.3	3.2
80°-90°	3.5	0.7
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°	219.3	42.9
0°-40°	323.5	63.2
0°-60°	459.2	89.7
0°-90°	511.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	511.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	337	337	337	337	337	
5°	334	334	329	331	331	32
15°	306	302	290	286	284	85
25°	244	236	228	227	224	112
35°	182	172	163	162	159	114
45°	121	113	105	98	93	93
55°	58	62	60	57	57	56
65°	31	31	33	34	35	30
75°	13	13	15	17	18	14
85°	1	2	2	4	5	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	337.0	337.0	337.0	337.0	337.0
2.5°	335.9	336.4	333.2	336.4	337.5
5°	333.8	333.8	328.9	331.1	331.1
7.5°	330.0	329.5	322.0	322.0	321.4
10°	324.1	322.0	312.8	311.2	310.2
12.5°	316.6	312.8	302.1	299.4	297.8
15°	306.4	302.1	290.3	286.5	284.4
17.5°	291.4	287.1	276.9	272.6	270.4
20°	275.8	269.4	261.9	258.1	256.0
22.5°	259.7	252.2	245.2	242.5	240.4
25°	244.2	236.1	228.1	227.0	223.8
27.5°	229.1	219.5	211.4	210.9	208.2
30°	213.0	202.8	194.2	194.8	192.1
32.5°	198.0	188.3	178.1	178.7	175.5
35°	182.4	172.2	162.6	162.1	158.8
37.5°	166.3	156.7	147.6	145.4	142.2
40°	151.9	142.2	132.5	128.8	125.6
42.5°	136.3	127.7	119.1	113.2	108.9
45°	120.7	113.2	105.2	97.7	92.8
47.5°	105.7	99.8	92.8	83.7	80.5
50°	90.7	86.4	80.5	72.4	70.8
52.5°	75.1	73.5	69.8	64.4	63.9
55°	58.5	61.7	59.6	57.4	56.9
57.5°	49.4	49.9	51.5	51.0	51.0
60°	42.4	42.4	44.5	45.1	45.1
62.5°	36.0	36.5	38.6	39.7	39.7
65°	30.6	31.1	32.7	34.3	34.9
67.5°	25.2	26.3	27.9	29.5	30.0
70°	20.4	21.5	23.6	25.2	25.8
72.5°	16.6	17.2	19.3	20.9	21.5
75°	12.9	13.4	15.0	17.2	17.7
77.5°	9.1	10.2	11.8	13.4	14.5
80°	6.4	7.0	8.0	10.2	10.7
82.5°	3.8	4.3	5.4	7.0	7.5
85°	1.1	1.6	2.1	3.8	4.8
87.5°	0.0	0.0	0.0	1.1	2.1
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	12.47	13.87	12.84	14.18	14.50	12.65	14.05	13.02	14.36	14.68
	3H	13.61	14.85	13.98	15.18	15.54	14.11	15.36	14.49	15.69	16.05
	4H	13.96	15.12	14.36	15.47	15.85	14.65	15.82	15.06	16.17	16.55
	6H	14.14	15.21	14.55	15.58	15.97	15.07	16.14	15.48	16.51	16.90
	8H	14.17	15.18	14.60	15.57	15.98	15.19	16.21	15.62	16.60	17.00
	12H	14.15	15.13	14.58	15.51	15.94	15.28	16.25	15.71	16.63	17.06
4H	2H	12.93	14.09	13.33	14.44	14.82	13.08	14.24	13.48	14.59	14.97
	3H	14.27	15.23	14.68	15.63	16.03	14.75	15.71	15.16	16.11	16.51
	4H	14.71	15.57	15.15	15.99	16.43	15.42	16.27	15.85	16.69	17.13
	6H	14.98	15.73	15.45	16.17	16.64	15.95	16.69	16.41	17.14	17.60
	8H	15.03	15.72	15.50	16.17	16.64	16.12	16.81	16.58	17.26	17.73
	12H	15.02	15.64	15.51	16.12	16.59	16.24	16.85	16.72	17.33	17.81
8H	4H	14.93	15.62	15.39	16.07	16.54	15.56	16.26	16.03	16.70	17.17
	6H	15.27	15.84	15.77	16.34	16.82	16.19	16.76	16.69	17.26	17.74
	8H	15.35	15.86	15.87	16.38	16.87	16.43	16.94	16.95	17.45	17.94
	12H	15.37	15.82	15.88	16.31	16.88	16.61	17.06	17.13	17.56	18.13
12H	4H	14.94	15.55	15.42	16.03	16.51	15.55	16.17	16.03	16.65	17.12
	6H	15.30	15.81	15.82	16.32	16.81	16.19	16.70	16.71	17.21	17.70
	8H	15.42	15.86	15.93	16.36	16.93	16.47	16.91	16.98	17.41	17.98