

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: P1058413

Luminaire Tested: S122RDR-H485D935-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058413
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H485D935-X4F0-XX-UDD-SVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

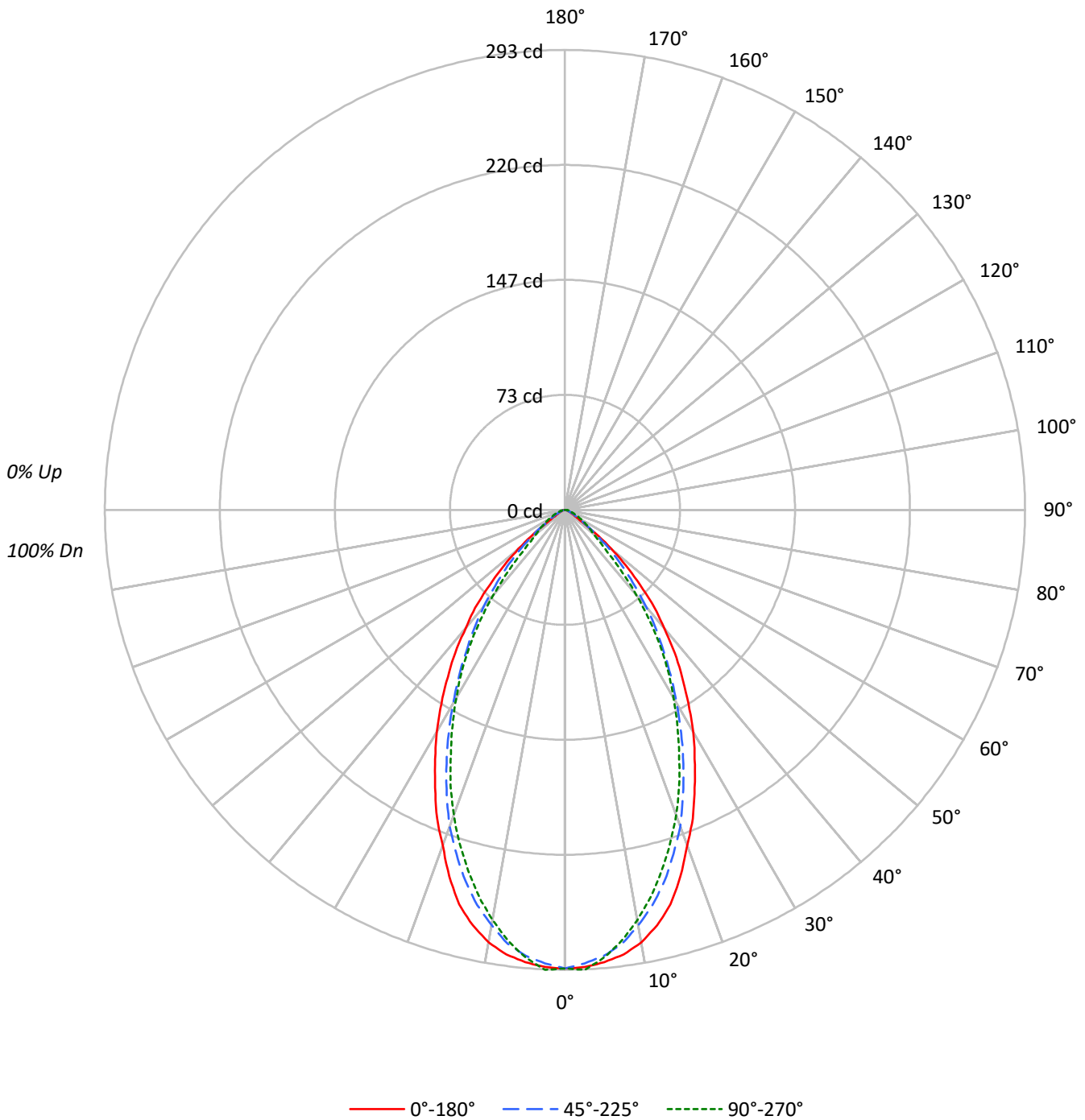
Lumens per Lamp: N/A
Luminaire Lumens: 314.2 lumens
Efficiency: N/A
Efficacy: 18.1 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	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	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92																																				
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84																																				
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	80	78	76																																				
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70																																				
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64																																				
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59																																				
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54																																				
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50																																				
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47																																				
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	44																																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5392	5392	5392
5°	5357	5283	5303
10°	5245	5037	4971
15°	4969	4678	4545
20°	4465	4214	4065
25°	3978	3632	3502
30°	3479	3032	2945
35°	2928	2458	2379
40°	2361	1939	1713
45°	1764	1401	1020
50°	1105	904	669
55°	376	489	544
60°	214	303	432
65°	153	205	332
70°	124	156	254
75°	86	121	207
80°	64	128	181
85°	0	0	127

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1764 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.9	8.6
10°-20°	68.9	21.9
20°-30°	83.0	26.4
30°-40°	70.9	22.6
40°-50°	41.5	13.2
50°-60°	15.0	4.8
60°-70°	5.3	1.7
70°-80°	2.1	0.7
80°-90°	0.4	0.1
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°	178.9	56.9
0°-40°	249.8	79.5
0°-60°	306.4	97.5
0°-90°	314.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	314.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	292	292	292	292	292	
5°	289	290	285	286	286	27
15°	260	256	245	240	238	72
25°	195	187	178	176	172	90
35°	130	120	109	108	106	81
45°	68	61	54	45	39	52
55°	12	16	15	16	17	15
65°	4	4	5	6	8	4
75°	1	2	2	2	3	1
85°	0	0	0	1	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	292.2	292.2	292.2	292.2	292.2
2.5°	291.6	292.2	289.2	292.2	293.3
5°	289.2	289.8	285.2	286.3	286.3
7.5°	285.7	285.2	278.8	277.6	277.0
10°	279.9	278.2	268.8	267.1	265.3
12.5°	271.2	267.7	257.8	254.8	252.5
15°	260.1	256.0	244.9	240.3	237.9
17.5°	244.9	240.3	229.8	225.1	222.8
20°	227.4	222.8	214.6	209.4	207.0
22.5°	212.9	205.3	196.5	193.0	190.1
25°	195.4	187.2	178.4	175.5	172.0
27.5°	179.0	169.1	160.4	158.0	155.1
30°	163.3	152.8	142.3	142.3	138.2
32.5°	146.4	136.5	125.4	124.8	122.5
35°	130.0	120.1	109.1	107.9	105.6
37.5°	114.9	105.0	94.5	91.0	88.1
40°	98.0	89.2	80.5	74.6	71.1
42.5°	84.6	74.6	65.9	58.9	54.2
45°	67.6	60.6	53.7	44.9	39.1
47.5°	52.5	47.8	42.0	32.1	29.2
50°	38.5	36.2	31.5	23.9	23.3
52.5°	24.5	25.7	22.7	18.7	20.4
55°	11.7	16.3	15.2	15.7	16.9
57.5°	7.6	8.2	11.1	12.8	14.0
60°	5.8	5.8	8.2	10.5	11.7
62.5°	4.7	4.7	6.4	8.7	9.3
65°	3.5	4.1	4.7	6.4	7.6
67.5°	2.9	2.9	3.5	5.2	5.8
70°	2.3	2.3	2.9	4.1	4.7
72.5°	1.7	1.7	2.3	3.5	3.5
75°	1.2	1.7	1.7	2.3	2.9
77.5°	1.2	1.2	1.2	1.7	2.3
80°	0.6	0.6	1.2	1.2	1.7
82.5°	0.6	0.6	0.6	0.6	1.2
85°	0.0	0.0	0.0	0.6	0.6
87.5°	0.0	0.0	0.0	0.0	0.0
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	1.76	2.92	2.13	3.24	3.55	5.12	6.29	5.49	6.60	6.91
	3H	2.27	3.29	2.65	3.62	3.99	5.85	6.87	6.23	7.20	7.57
	4H	2.40	3.34	2.80	3.70	4.08	6.06	7.01	6.47	7.36	7.75
	6H	2.48	3.35	2.90	3.72	4.11	6.21	7.07	6.62	7.45	7.84
	8H	2.49	3.30	2.92	3.70	4.10	6.24	7.06	6.67	7.45	7.86
	12H	2.45	3.23	2.89	3.62	4.05	6.24	7.03	6.68	7.41	7.84
4H	2H	2.07	3.02	2.48	3.37	3.76	5.09	6.04	5.50	6.39	6.78
	3H	2.71	3.48	3.13	3.89	4.29	5.97	6.73	6.38	7.14	7.55
	4H	2.94	3.62	3.38	4.05	4.49	6.24	6.93	6.68	7.35	7.79
	6H	3.07	3.66	3.54	4.11	4.58	6.46	7.05	6.93	7.49	7.96
	8H	3.09	3.64	3.57	4.09	4.56	6.51	7.05	6.98	7.50	7.98
	12H	3.06	3.54	3.55	4.02	4.50	6.53	7.01	7.02	7.50	7.97
8H	4H	3.05	3.59	3.52	4.04	4.51	6.17	6.72	6.64	7.17	7.64
	6H	3.23	3.67	3.74	4.17	4.65	6.43	6.87	6.93	7.37	7.85
	8H	3.28	3.68	3.81	4.20	4.69	6.49	6.89	7.02	7.41	7.90
	12H	3.26	3.61	3.78	4.10	4.68	6.56	6.91	7.08	7.41	7.98
12H	4H	3.03	3.51	3.52	4.00	4.47	6.12	6.60	6.61	7.09	7.56
	6H	3.23	3.63	3.76	4.14	4.64	6.38	6.77	6.91	7.29	7.79
	8H	3.31	3.66	3.83	4.15	4.73	6.47	6.82	6.99	7.31	7.89