

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: P1058339

Luminaire Tested: S122RDR-H290D940-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058339
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H290D940-X4F0-XX-UDD-BVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

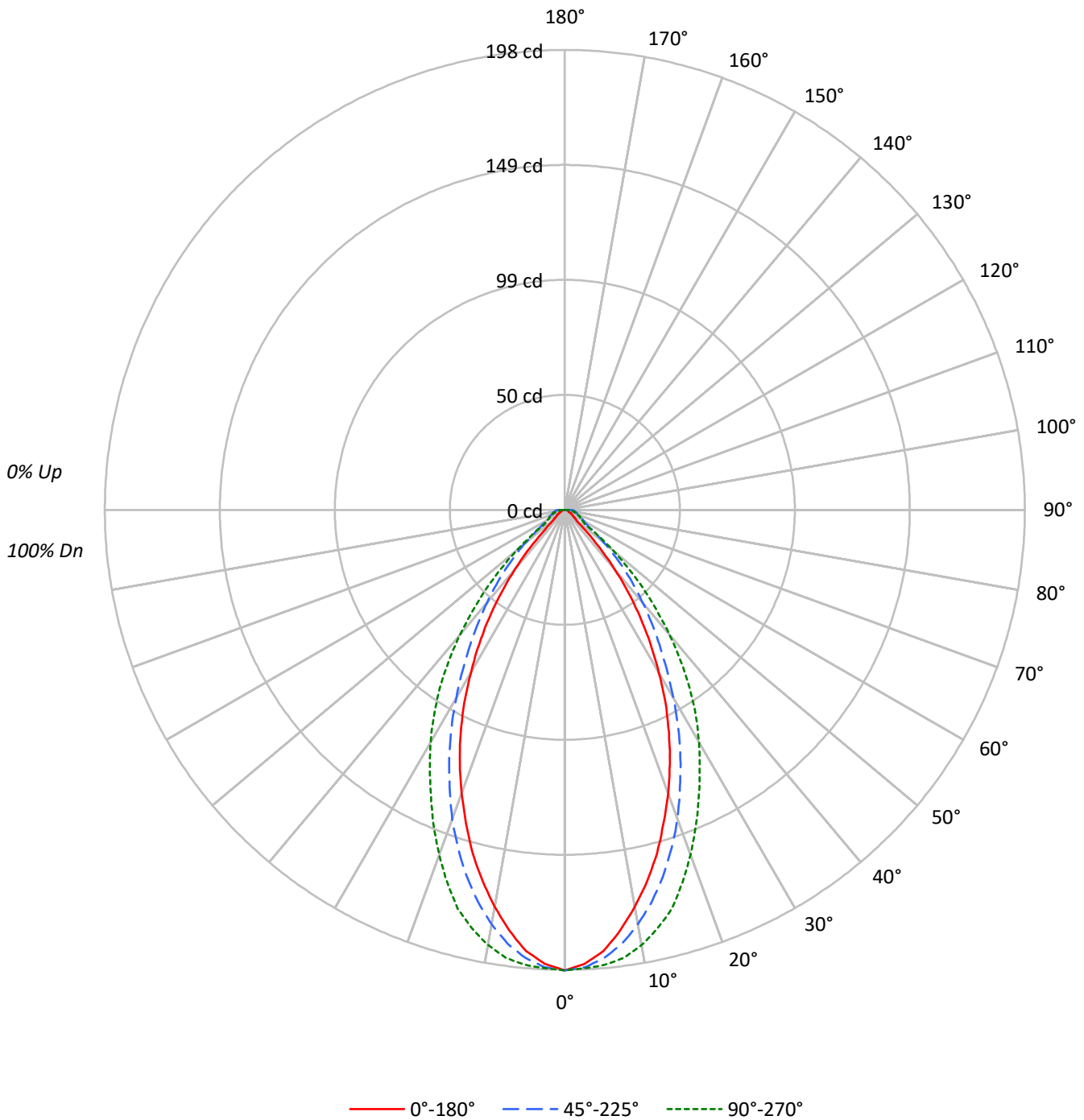
Lumens per Lamp: N/A
Luminaire Lumens: 213.7 lumens
Efficiency: N/A
Efficacy: 18.3 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	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	77	82	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	68	64	71	67	63	61				
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57				
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52				
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48				
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45				
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3659	3659	3659
5°	3532	3588	3643
10°	3253	3395	3566
15°	2925	3120	3397
20°	2551	2783	3103
25°	2158	2396	2777
30°	1724	1990	2461
35°	1275	1599	2113
40°	805	1253	1684
45°	318	942	1240
50°	164	632	764
55°	135	415	341
60°	100	336	310
65°	83	314	314
70°	81	329	308
75°	107	378	328
80°	159	489	361
85°	233	805	487

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 1608 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.1	8.5
10°-20°	45.8	21.4
20°-30°	54.4	25.5
30°-40°	45.3	21.2
40°-50°	25.3	11.8
50°-60°	10.2	4.8
60°-70°	6.5	3.1
70°-80°	4.9	2.3
80°-90°	3.1	1.5
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°	118.4	55.4
0°-40°	163.7	76.6
0°-60°	199.2	93.2
0°-90°	213.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	213.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	198	198	198	198	198	
5°	191	194	194	195	197	18
15°	153	158	163	172	178	43
25°	106	110	118	127	136	48
35°	57	62	71	83	94	35
45°	12	20	36	42	48	11
55°	4	9	13	12	11	4
65°	2	8	7	7	7	2
75°	2	5	5	5	5	2
85°	1	3	4	3	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	198.3	198.3	198.3	198.3	198.3
2.5°	195.6	198.6	197.1	197.1	197.5
5°	190.7	194.1	193.7	195.2	196.7
7.5°	182.7	186.5	188.4	191.8	194.5
10°	173.6	177.8	181.2	186.5	190.3
12.5°	163.7	167.9	172.8	179.7	184.6
15°	153.1	157.6	163.3	171.7	177.8
17.5°	141.3	146.2	152.7	161.8	168.3
20°	129.9	134.8	141.7	150.8	158.0
22.5°	118.1	122.3	129.5	138.6	147.4
25°	106.0	110.1	117.7	126.9	136.4
27.5°	93.8	98.0	105.6	115.1	125.7
30°	80.9	85.5	93.4	104.1	115.5
32.5°	68.7	73.3	81.7	93.4	104.8
35°	56.6	61.9	71.0	82.8	93.8
37.5°	44.8	50.9	61.2	72.2	82.0
40°	33.4	39.9	52.0	61.5	69.9
42.5°	22.0	29.6	43.7	51.7	58.1
45°	12.2	20.5	36.1	42.2	47.5
47.5°	6.8	13.3	28.5	33.4	36.5
50°	5.7	9.9	22.0	25.4	26.6
52.5°	4.6	9.1	16.7	18.6	17.9
55°	4.2	8.7	12.9	12.5	10.6
57.5°	3.4	8.7	10.3	9.1	9.1
60°	2.7	8.4	9.1	8.0	8.4
62.5°	2.3	8.0	8.4	7.6	7.6
65°	1.9	7.6	7.2	6.8	7.2
67.5°	1.5	6.8	6.8	6.5	6.5
70°	1.5	6.5	6.1	5.7	5.7
72.5°	1.5	5.7	5.7	5.3	5.3
75°	1.5	5.3	5.3	4.9	4.6
77.5°	1.5	4.6	4.9	4.6	4.2
80°	1.5	4.2	4.6	4.2	3.4
82.5°	1.5	3.8	4.2	3.8	3.0
85°	1.1	3.4	3.8	3.4	2.3
87.5°	1.1	3.4	3.8	3.0	1.9
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	2.85	4.07	3.21	4.38	4.69	3.94	5.16	4.30	5.47	5.78
	3H	4.18	5.27	4.56	5.60	5.96	5.99	7.07	6.37	7.40	7.77
	4H	4.75	5.76	5.16	6.12	6.50	6.94	7.95	7.34	8.30	8.69
	6H	5.32	6.25	5.74	6.62	7.02	7.89	8.82	8.31	9.19	9.59
	8H	5.64	6.52	6.08	6.91	7.32	8.33	9.21	8.76	9.60	10.01
	12H	5.94	6.78	6.37	7.16	7.60	8.75	9.59	9.19	9.98	10.41
4H	2H	3.82	4.83	4.22	5.18	5.56	4.61	5.62	5.02	5.98	6.36
	3H	5.86	6.69	6.27	7.09	7.50	6.91	7.74	7.33	8.15	8.55
	4H	6.93	7.68	7.37	8.10	8.54	8.05	8.80	8.49	9.22	9.67
	6H	7.81	8.46	8.27	8.91	9.37	9.23	9.88	9.70	10.33	10.80
	8H	8.22	8.82	8.69	9.27	9.74	9.79	10.39	10.26	10.84	11.31
	12H	8.59	9.12	9.08	9.61	10.08	10.33	10.87	10.82	11.35	11.82
8H	4H	7.70	8.31	8.17	8.76	9.23	8.60	9.21	9.07	9.66	10.13
	6H	9.06	9.55	9.56	10.05	10.53	10.07	10.57	10.58	11.07	11.55
	8H	9.77	10.22	10.29	10.73	11.23	10.83	11.27	11.35	11.79	12.28
	12H	10.45	10.84	10.97	11.34	11.91	11.61	12.01	12.13	12.50	13.07
12H	4H	7.86	8.40	8.35	8.88	9.36	8.71	9.25	9.20	9.73	10.21
	6H	9.38	9.83	9.91	10.35	10.84	10.30	10.75	10.82	11.26	11.76
	8H	10.28	10.68	10.80	11.17	11.74	11.20	11.59	11.72	12.09	12.66