

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1057891

Luminaire Tested: S122RDRP-S290D840-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057891
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: S122RDRP-S290D840-X4F0-XX-UDD-SVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

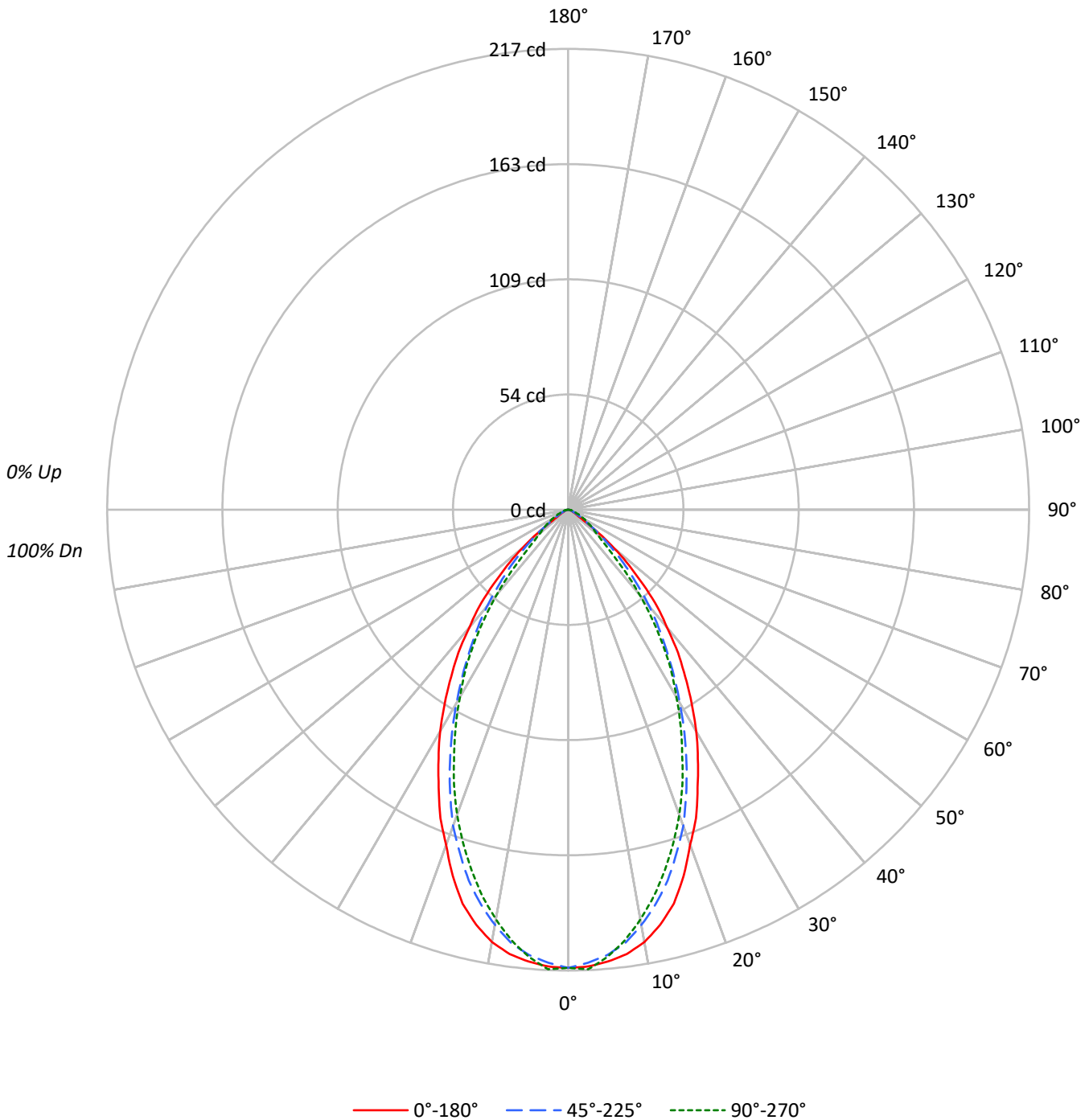
Lumens per Lamp: N/A
Luminaire Lumens: 232.0 lumens
Efficiency: N/A
Efficacy: 18.6 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
Input Voltage (V): 120
Input Current (A_{in}): 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	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°	3980	3980	3980
5°	3957	3899	3916
10°	3873	3719	3671
15°	3668	3454	3356
20°	3297	3110	3002
25°	2936	2683	2586
30°	2570	2239	2173
35°	2163	1813	1755
40°	1742	1431	1265
45°	1302	1033	752
50°	815	669	494
55°	277	360	402
60°	159	221	317
65°	114	148	245
70°	92	119	183
75°	64	93	157
80°	43	96	138
85°	0	0	85

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1302 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.9	8.6
10°-20°	50.9	21.9
20°-30°	61.3	26.4
30°-40°	52.4	22.6
40°-50°	30.7	13.2
50°-60°	11.1	4.8
60°-70°	3.9	1.7
70°-80°	1.6	0.7
80°-90°	0.3	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°	132.1	56.9
0°-40°	184.4	79.5
0°-60°	226.2	97.5
0°-90°	232.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	232.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	216	216	216	216	216	
5°	214	214	210	211	211	20
15°	192	189	181	177	176	53
25°	144	138	132	130	127	66
35°	96	89	80	80	78	60
45°	50	45	40	33	29	39
55°	9	12	11	12	12	11
65°	3	3	3	5	6	3
75°	1	1	1	2	2	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



TEST NUMBER: P1057891

CATALOG NUMBER: S122RDRP-S290D840-X4F0-XX-UDD-SVL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	215.7	215.7	215.7	215.7	215.7
2.5°	215.3	215.7	213.6	215.7	216.6
5°	213.6	214.0	210.5	211.4	211.4
7.5°	211.0	210.5	205.8	204.9	204.5
10°	206.7	205.4	198.5	197.2	195.9
12.5°	200.2	197.6	190.3	188.2	186.4
15°	192.0	189.0	180.8	177.4	175.7
17.5°	180.8	177.4	169.6	166.2	164.5
20°	167.9	164.5	158.4	154.6	152.9
22.5°	157.2	151.6	145.1	142.5	140.4
25°	144.2	138.2	131.8	129.6	127.0
27.5°	132.2	124.9	118.4	116.7	114.5
30°	120.6	112.8	105.1	105.1	102.0
32.5°	108.1	100.8	92.6	92.1	90.4
35°	96.0	88.7	80.5	79.7	77.9
37.5°	84.8	77.5	69.8	67.2	65.0
40°	72.3	65.9	59.4	55.1	52.5
42.5°	62.4	55.1	48.7	43.5	40.0
45°	49.9	44.8	39.6	33.2	28.8
47.5°	38.8	35.3	31.0	23.7	21.5
50°	28.4	26.7	23.3	17.7	17.2
52.5°	18.1	18.9	16.8	13.8	15.1
55°	8.6	12.1	11.2	11.6	12.5
57.5°	5.6	6.0	8.2	9.5	10.3
60°	4.3	4.3	6.0	7.8	8.6
62.5°	3.4	3.4	4.7	6.5	6.9
65°	2.6	3.0	3.4	4.7	5.6
67.5°	2.2	2.2	2.6	3.9	4.3
70°	1.7	1.7	2.2	3.0	3.4
72.5°	1.3	1.3	1.7	2.6	2.6
75°	0.9	1.3	1.3	1.7	2.2
77.5°	0.9	0.9	0.9	1.3	1.7
80°	0.4	0.4	0.9	0.9	1.3
82.5°	0.4	0.4	0.4	0.4	0.9
85°	0.0	0.0	0.0	0.4	0.4
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	0.66	1.82	1.02	2.13	2.45	4.09	5.26	4.46	5.57	5.88
	3H	1.19	2.22	1.57	2.55	2.91	4.81	5.84	5.20	6.17	6.54
	4H	1.34	2.28	1.74	2.64	3.02	5.04	5.98	5.44	6.34	6.72
	6H	1.42	2.29	1.84	2.66	3.05	5.19	6.05	5.60	6.43	6.82
	8H	1.42	2.23	1.85	2.62	3.03	5.22	6.04	5.65	6.43	6.84
	12H	1.38	2.16	1.81	2.54	2.97	5.22	6.00	5.65	6.38	6.81
4H	2H	0.96	1.90	1.36	2.26	2.64	4.05	5.00	4.46	5.35	5.74
	3H	1.63	2.40	2.05	2.81	3.21	4.93	5.69	5.34	6.10	6.50
	4H	1.89	2.57	2.32	2.99	3.44	5.21	5.89	5.65	6.31	6.76
	6H	2.01	2.60	2.48	3.05	3.52	5.44	6.02	5.90	6.47	6.94
	8H	2.02	2.56	2.49	3.01	3.48	5.48	6.03	5.96	6.48	6.95
	12H	1.98	2.46	2.47	2.94	3.42	5.50	5.98	5.99	6.46	6.94
8H	4H	2.00	2.54	2.47	2.99	3.47	5.14	5.69	5.61	6.14	6.61
	6H	2.17	2.61	2.68	3.11	3.60	5.41	5.85	5.91	6.35	6.83
	8H	2.20	2.60	2.73	3.12	3.61	5.47	5.86	6.00	6.38	6.88
	12H	2.17	2.52	2.69	3.02	3.59	5.52	5.87	6.04	6.37	6.94
12H	4H	1.99	2.46	2.48	2.95	3.43	5.09	5.57	5.58	6.06	6.53
	6H	2.17	2.57	2.70	3.08	3.58	5.36	5.75	5.88	6.27	6.77
	8H	2.23	2.57	2.74	3.07	3.65	5.44	5.79	5.96	6.29	6.86