

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: P1057877

Luminaire Tested: S122RDRP-S290D830-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057877
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: S122RDRP-S290D830-X4F0-XX-UDD-WVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

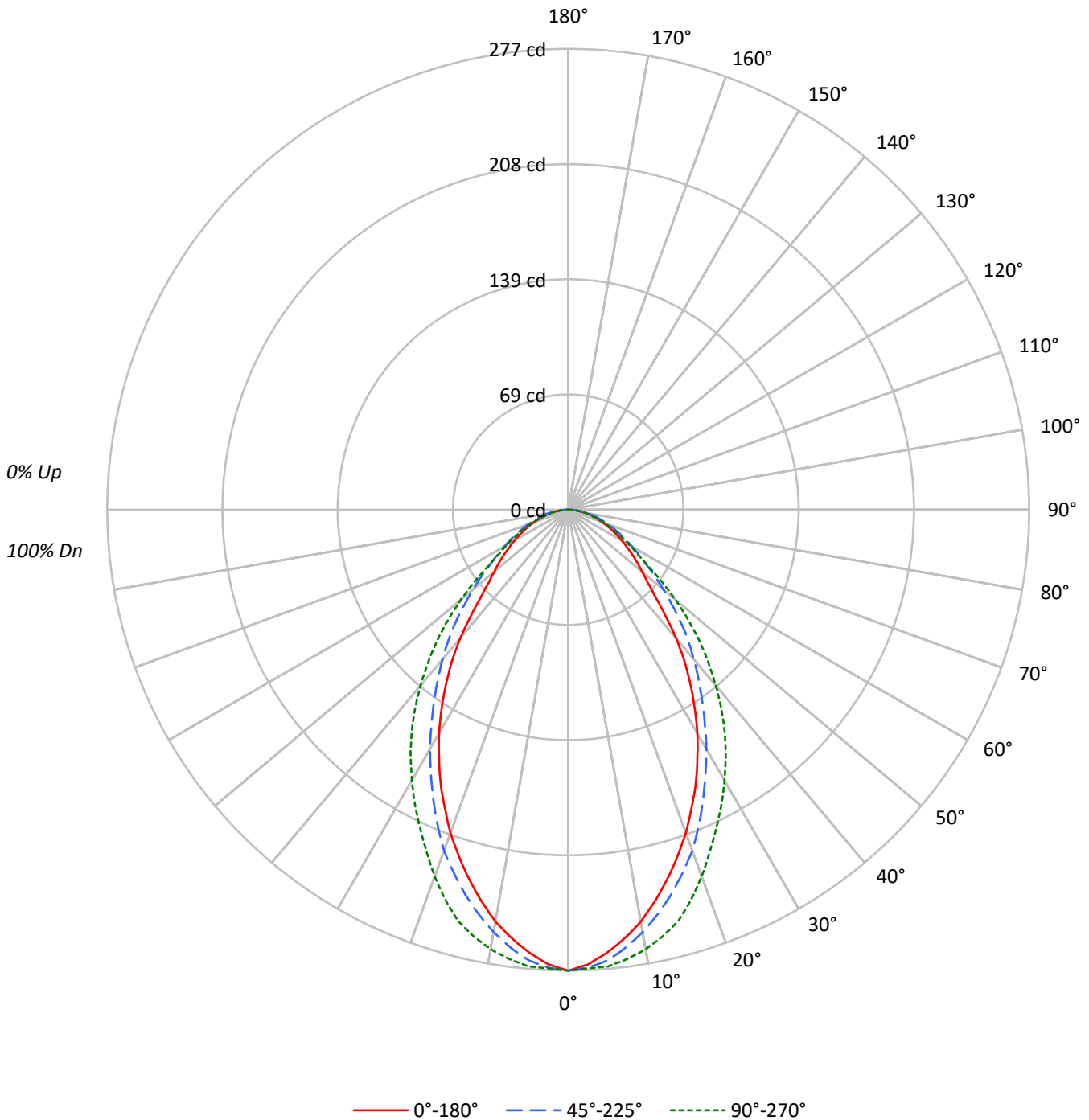
Lumens per Lamp: N/A
Luminaire Lumens: 451.2 lumens
Efficiency: N/A
Efficacy: 36.1 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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					100			
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87					87			
2	102	95	89	84	100	93	88	83	90	85	81	87	83	79	84	80	78	76					76			
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66					66			
4	88	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61	59					59			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52					52			
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47					47			
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44	43					43			
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39					39			
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36					36			
10	59	47	40	35	58	46	39	35	45	39	35	45	39	34	44	38	34	33					33			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5113	5113	5113
5°	4953	5036	5103
10°	4711	4830	5027
15°	4394	4571	4887
20°	4059	4281	4605
25°	3693	3905	4290
30°	3307	3539	4001
35°	2881	3163	3697
40°	2430	2828	3322
45°	1931	2497	2907
50°	1662	2147	2414
55°	1515	1837	1850
60°	1380	1631	1572
65°	1266	1476	1388
70°	1171	1365	1235
75°	1091	1290	1091
80°	1031	1243	988
85°	1016	1270	847

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2907 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.6	5.7
10°-20°	67.6	15.0
20°-30°	89.0	19.7
30°-40°	89.5	19.8
40°-50°	72.5	16.1
50°-60°	50.0	11.1
60°-70°	32.7	7.2
70°-80°	18.2	4.0
80°-90°	6.2	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°	182.2	40.4
0°-40°	271.7	60.2
0°-60°	394.2	87.4
0°-90°	451.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	451.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	277	277	277	277	277	
5°	267	273	272	273	276	25
15°	230	236	239	248	256	64
25°	181	186	192	200	211	83
35°	128	134	140	153	164	80
45°	74	82	96	104	111	59
55°	47	52	57	58	58	42
65°	29	35	34	32	32	29
75°	15	19	18	16	15	16
85°	5	6	6	5	4	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	277.1	277.1	277.1	277.1	277.1
2.5°	273.5	278.3	275.5	275.5	275.9
5°	267.4	272.7	271.9	273.1	275.5
7.5°	259.8	265.4	265.4	269.1	272.3
10°	251.4	257.0	257.8	263.4	268.3
12.5°	240.9	246.5	248.9	256.2	262.6
15°	230.0	235.7	239.3	248.1	255.8
17.5°	218.4	224.0	228.8	238.1	245.7
20°	206.7	211.9	218.0	226.0	234.5
22.5°	193.8	199.5	205.1	212.8	222.4
25°	181.4	186.2	191.8	200.3	210.7
27.5°	168.1	173.3	178.6	188.6	199.5
30°	155.2	160.5	166.1	176.6	187.8
32.5°	141.6	147.2	152.8	164.5	176.2
35°	127.9	133.9	140.4	152.8	164.1
37.5°	114.6	121.1	128.7	141.6	151.2
40°	100.9	107.8	117.4	128.7	137.9
42.5°	86.5	94.9	106.6	116.2	124.7
45°	74.0	82.4	95.7	104.2	111.4
47.5°	64.8	71.6	84.5	91.7	97.7
50°	57.9	63.1	74.8	80.0	84.1
52.5°	52.3	57.5	65.6	69.2	70.4
55°	47.1	52.3	57.1	58.3	57.5
57.5°	41.8	47.5	50.3	49.1	49.1
60°	37.4	43.4	44.2	42.6	42.6
62.5°	33.0	39.0	39.0	37.0	37.0
65°	29.0	34.6	33.8	32.2	31.8
67.5°	25.3	30.6	29.4	27.8	27.3
70°	21.7	26.5	25.3	23.3	22.9
72.5°	18.5	22.9	21.3	19.7	18.9
75°	15.3	18.9	18.1	16.1	15.3
77.5°	12.5	15.3	14.5	12.9	12.1
80°	9.7	12.1	11.7	10.1	9.3
82.5°	7.2	9.3	8.8	7.6	6.4
85°	4.8	6.4	6.0	5.2	4.0
87.5°	2.4	4.4	4.0	3.6	2.0
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	12.40	13.84	12.77	14.16	14.47	12.76	14.20	13.13	14.52	14.83
	3H	13.94	15.23	14.32	15.56	15.93	14.11	15.40	14.49	15.72	16.09
	4H	14.52	15.72	14.92	16.07	16.45	14.59	15.80	14.99	16.15	16.53
	6H	14.95	16.06	15.36	16.43	16.82	14.95	16.06	15.36	16.43	16.82
	8H	15.10	16.16	15.53	16.55	16.95	15.06	16.12	15.49	16.51	16.91
	12H	15.22	16.23	15.65	16.61	17.04	15.14	16.15	15.57	16.53	16.96
4H	2H	12.99	14.20	13.39	14.55	14.93	13.28	14.49	13.68	14.83	15.21
	3H	14.81	15.81	15.22	16.21	16.61	14.85	15.85	15.26	16.25	16.65
	4H	15.55	16.45	15.99	16.87	17.31	15.45	16.35	15.89	16.77	17.21
	6H	16.14	16.93	16.60	17.37	17.83	15.94	16.72	16.40	17.16	17.63
	8H	16.35	17.09	16.82	17.53	18.00	16.10	16.83	16.56	17.28	17.75
	12H	16.52	17.17	17.00	17.65	18.12	16.22	16.87	16.70	17.35	17.82
8H	4H	15.84	16.57	16.30	17.02	17.48	15.75	16.48	16.22	16.93	17.40
	6H	16.60	17.20	17.10	17.70	18.17	16.37	16.98	16.87	17.47	17.95
	8H	16.92	17.47	17.44	17.98	18.47	16.62	17.16	17.14	17.68	18.16
	12H	17.21	17.69	17.72	18.18	18.75	16.83	17.31	17.34	17.80	18.37
12H	4H	15.86	16.51	16.34	16.99	17.46	15.79	16.44	16.27	16.92	17.39
	6H	16.66	17.20	17.18	17.71	18.20	16.45	16.99	16.97	17.51	18.00
	8H	17.06	17.54	17.57	18.03	18.60	16.77	17.25	17.28	17.74	18.31