

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: P1058177

Luminaire Tested: S122RDRP-S865D940-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058177
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: S122RDRP-S865D940-X4F0-XX-UDD-BVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

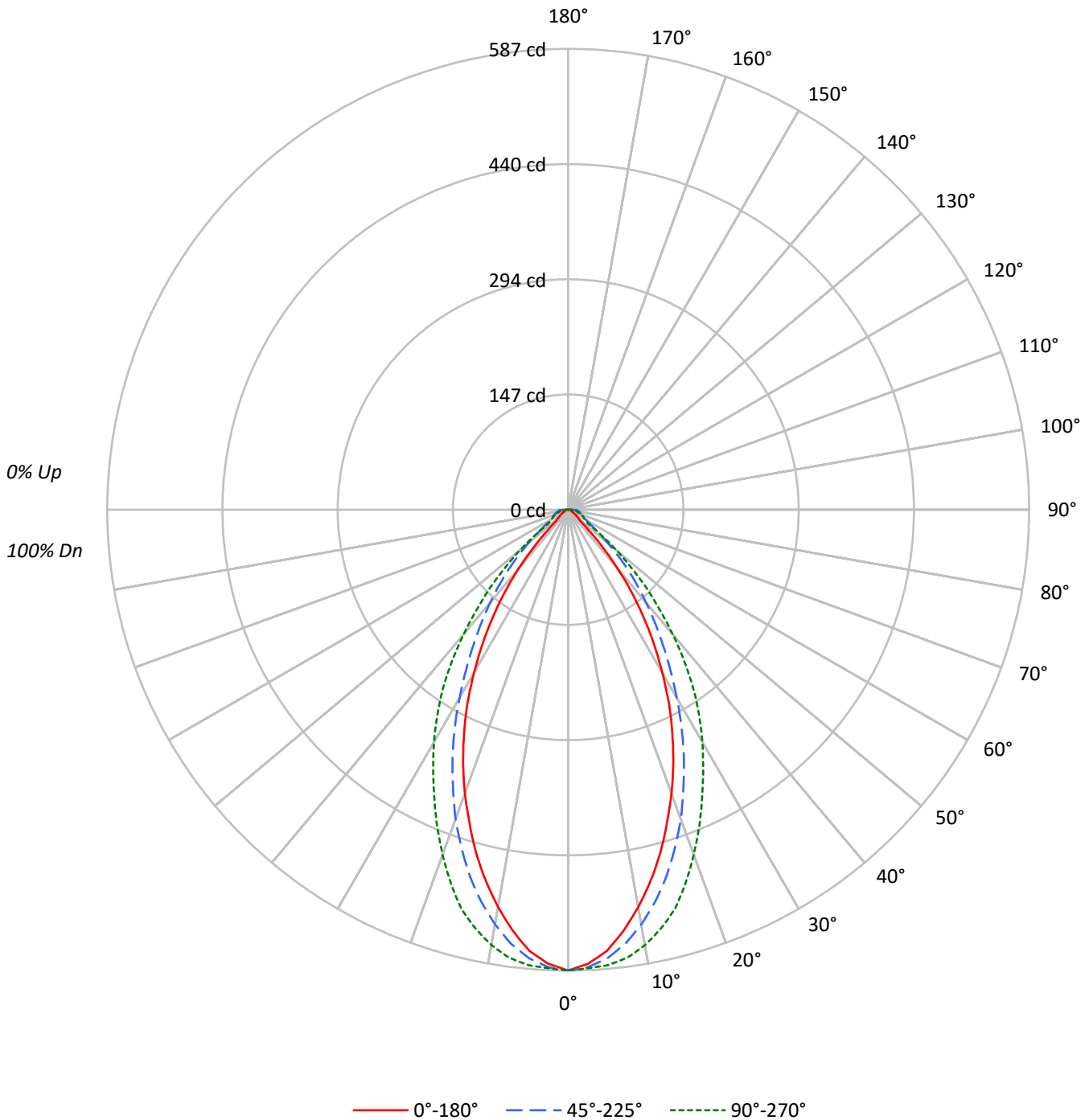
Lumens per Lamp: N/A
Luminaire Lumens: 632.5 lumens
Efficiency: N/A
Efficacy: 18.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
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	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°	10828	10828	10828
5°	10453	10619	10786
10°	9625	10047	10553
15°	8654	9235	10050
20°	7550	8234	9182
25°	6385	7095	8217
30°	5101	5891	7281
35°	3773	4735	6256
40°	2382	3710	4981
45°	939	2787	3666
50°	485	1872	2259
55°	399	1229	1013
60°	292	996	912
65°	245	934	934
70°	243	971	912
75°	321	1119	962
80°	478	1435	1073
85°	720	2371	1419

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 4738 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.7	8.5
10°-20°	135.6	21.4
20°-30°	161.1	25.5
30°-40°	134.0	21.2
40°-50°	74.8	11.8
50°-60°	30.2	4.8
60°-70°	19.3	3.1
70°-80°	14.5	2.3
80°-90°	9.2	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°	350.3	55.4
0°-40°	484.3	76.6
0°-60°	589.4	93.2
0°-90°	632.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	632.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	587	587	587	587	587	
5°	564	574	573	578	582	52
15°	453	466	483	508	526	126
25°	314	326	348	376	404	143
35°	168	183	210	245	278	104
45°	36	61	107	125	140	34
55°	12	26	38	37	32	11
65°	6	22	21	20	21	6
75°	4	16	16	15	14	5
85°	3	10	11	10	7	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	586.8	586.8	586.8	586.8	586.8
2.5°	578.9	587.9	583.4	583.4	584.5
5°	564.3	574.4	573.3	577.8	582.3
7.5°	540.7	551.9	557.6	567.7	575.6
10°	513.7	526.1	536.2	551.9	563.2
12.5°	484.5	496.9	511.5	531.7	546.3
15°	453.0	466.5	483.4	508.1	526.1
17.5°	418.2	432.8	451.9	478.9	498.0
20°	384.5	399.1	419.3	446.3	467.6
22.5°	349.6	362.0	383.3	410.3	436.2
25°	313.6	326.0	348.5	375.5	403.6
27.5°	277.7	290.0	312.5	340.6	372.1
30°	239.4	252.9	276.5	308.0	341.7
32.5°	203.5	217.0	241.7	276.5	310.3
35°	167.5	183.2	210.2	245.1	277.7
37.5°	132.6	150.6	181.0	213.6	242.8
40°	98.9	118.0	154.0	182.1	206.8
42.5°	65.2	87.7	129.3	152.9	172.0
45°	36.0	60.7	106.8	124.8	140.5
47.5°	20.2	39.3	84.3	98.9	107.9
50°	16.9	29.2	65.2	75.3	78.7
52.5°	13.5	27.0	49.5	55.1	52.8
55°	12.4	25.9	38.2	37.1	31.5
57.5°	10.1	25.9	30.4	27.0	27.0
60°	7.9	24.7	27.0	23.6	24.7
62.5°	6.7	23.6	24.7	22.5	22.5
65°	5.6	22.5	21.4	20.2	21.4
67.5°	4.5	20.2	20.2	19.1	19.1
70°	4.5	19.1	18.0	16.9	16.9
72.5°	4.5	16.9	16.9	15.7	15.7
75°	4.5	15.7	15.7	14.6	13.5
77.5°	4.5	13.5	14.6	13.5	12.4
80°	4.5	12.4	13.5	12.4	10.1
82.5°	4.5	11.2	12.4	11.2	9.0
85°	3.4	10.1	11.2	10.1	6.7
87.5°	3.4	10.1	11.2	9.0	5.6
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	6.65	7.87	7.02	8.18	8.50	7.72	8.94	8.09	9.25	9.57
	3H	7.98	9.06	8.36	9.39	9.76	9.75	10.83	10.13	11.17	11.53
	4H	8.55	9.56	8.96	9.91	10.30	10.70	11.71	11.11	12.07	12.45
	6H	9.12	10.05	9.53	10.42	10.81	11.65	12.58	12.07	12.95	13.35
	8H	9.44	10.32	9.88	10.71	11.12	12.10	12.98	12.53	13.37	13.78
	12H	9.75	10.59	10.19	10.98	11.41	12.52	13.36	12.95	13.74	14.17
4H	2H	7.61	8.63	8.02	8.98	9.36	8.40	9.41	8.80	9.76	10.15
	3H	9.64	10.47	10.05	10.88	11.28	10.68	11.51	11.10	11.92	12.32
	4H	10.71	11.46	11.15	11.88	12.33	11.83	12.58	12.26	13.00	13.44
	6H	11.59	12.24	12.05	12.68	13.15	13.00	13.65	13.46	14.09	14.56
	8H	12.00	12.60	12.47	13.05	13.52	13.56	14.17	14.03	14.61	15.08
	12H	12.38	12.91	12.87	13.40	13.87	14.10	14.63	14.59	15.12	15.59
8H	4H	11.48	12.09	11.95	12.54	13.01	12.38	12.98	12.85	13.43	13.90
	6H	12.83	13.32	13.33	13.82	14.30	13.84	14.33	14.34	14.83	15.31
	8H	13.54	13.99	14.06	14.50	15.00	14.60	15.04	15.12	15.56	16.05
	12H	14.23	14.62	14.75	15.12	15.69	15.38	15.77	15.89	16.27	16.84
12H	4H	11.64	12.17	12.13	12.66	13.13	12.48	13.02	12.97	13.50	13.98
	6H	13.15	13.60	13.67	14.11	14.61	14.06	14.51	14.59	15.02	15.52
	8H	14.05	14.44	14.57	14.94	15.51	14.97	15.36	15.48	15.85	16.43