

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: P1058258

Luminaire Tested: S122RDR-H1005D940-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058258
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-H1005D940-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

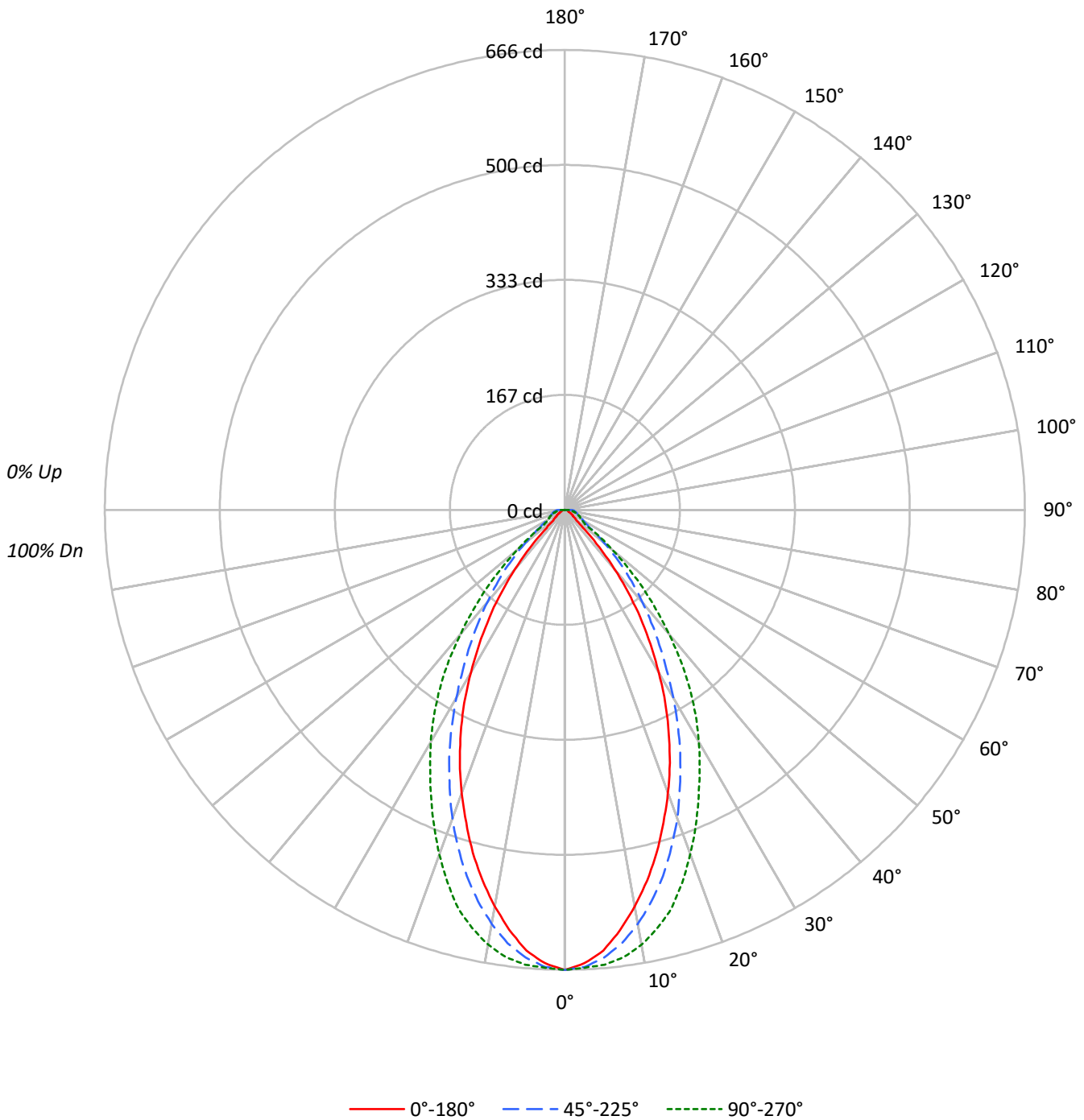
Lumens per Lamp: N/A
Luminaire Lumens: 718.1 lumens
Efficiency: N/A
Efficacy: 19.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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°	12293	12293	12293
5°	11866	12057	12246
10°	10927	11405	11981
15°	9825	10484	11410
20°	8571	9347	10425
25°	7250	8054	9327
30°	5791	6688	8267
35°	4285	5375	7100
40°	2705	4211	5656
45°	1065	3163	4162
50°	548	2124	2564
55°	450	1396	1149
60°	328	1129	1037
65°	279	1057	1057
70°	275	1101	1030
75°	364	1276	1091
80°	542	1626	1222
85°	805	2710	1630

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 5415 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.9	8.5
10°-20°	153.9	21.4
20°-30°	182.9	25.5
30°-40°	152.1	21.2
40°-50°	85.0	11.8
50°-60°	34.3	4.8
60°-70°	22.0	3.1
70°-80°	16.5	2.3
80°-90°	10.5	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°	397.7	55.4
0°-40°	549.9	76.6
0°-60°	669.1	93.2
0°-90°	718.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	718.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	666	666	666	666	666	
5°	641	652	651	656	661	59
15°	514	530	549	577	597	143
25°	356	370	396	426	458	162
35°	190	208	239	278	315	118
45°	41	69	121	142	160	38
55°	14	29	43	42	36	12
65°	6	26	24	23	24	6
75°	5	18	18	17	15	5
85°	4	12	13	12	8	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	666.2	666.2	666.2	666.2	666.2
2.5°	657.2	667.4	662.3	662.3	663.6
5°	640.6	652.1	650.9	656.0	661.1
7.5°	613.8	626.6	633.0	644.5	653.4
10°	583.2	597.3	608.7	626.6	639.4
12.5°	550.0	564.1	580.7	603.6	620.2
15°	514.3	529.6	548.8	576.8	597.3
17.5°	474.7	491.3	513.0	543.7	565.3
20°	436.5	453.0	476.0	506.6	530.9
22.5°	396.9	410.9	435.2	465.8	495.2
25°	356.1	370.1	395.6	426.2	458.1
27.5°	315.2	329.3	354.8	386.7	422.4
30°	271.8	287.1	313.9	349.7	388.0
32.5°	231.0	246.3	274.4	313.9	352.2
35°	190.2	208.0	238.6	278.2	315.2
37.5°	150.6	171.0	205.5	242.5	275.7
40°	112.3	134.0	174.8	206.7	234.8
42.5°	74.0	99.5	146.8	173.6	195.3
45°	40.8	68.9	121.2	141.7	159.5
47.5°	23.0	44.7	95.7	112.3	122.5
50°	19.1	33.2	74.0	85.5	89.3
52.5°	15.3	30.6	56.2	62.5	60.0
55°	14.0	29.4	43.4	42.1	35.7
57.5°	11.5	29.4	34.5	30.6	30.6
60°	8.9	28.1	30.6	26.8	28.1
62.5°	7.7	26.8	28.1	25.5	25.5
65°	6.4	25.5	24.2	23.0	24.2
67.5°	5.1	23.0	23.0	21.7	21.7
70°	5.1	21.7	20.4	19.1	19.1
72.5°	5.1	19.1	19.1	17.9	17.9
75°	5.1	17.9	17.9	16.6	15.3
77.5°	5.1	15.3	16.6	15.3	14.0
80°	5.1	14.0	15.3	14.0	11.5
82.5°	5.1	12.8	14.0	12.8	10.2
85°	3.8	11.5	12.8	11.5	7.7
87.5°	3.8	11.5	12.8	10.2	6.4
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	7.09	8.31	7.46	8.62	8.94	8.15	9.37	8.52	9.68	10.00
	3H	8.42	9.51	8.80	9.84	10.20	10.18	11.27	10.56	11.60	11.96
	4H	9.00	10.01	9.40	10.36	10.74	11.14	12.15	11.54	12.50	12.89
	6H	9.56	10.49	9.98	10.86	11.26	12.08	13.01	12.50	13.39	13.78
	8H	9.88	10.76	10.32	11.16	11.56	12.53	13.41	12.97	13.81	14.21
	12H	10.19	11.03	10.62	11.41	11.84	12.96	13.80	13.39	14.18	14.61
4H	2H	8.05	9.06	8.45	9.41	9.80	8.83	9.84	9.23	10.19	10.57
	3H	10.07	10.91	10.49	11.31	11.72	11.11	11.94	11.52	12.35	12.75
	4H	11.16	11.90	11.59	12.33	12.77	12.26	13.01	12.70	13.43	13.88
	6H	12.03	12.67	12.49	13.12	13.59	13.43	14.08	13.90	14.53	14.99
	8H	12.44	13.04	12.91	13.49	13.96	13.99	14.60	14.46	15.05	15.52
	12H	12.82	13.35	13.30	13.83	14.31	14.54	15.08	15.03	15.56	16.03
8H	4H	11.93	12.53	12.40	12.98	13.45	12.81	13.42	13.28	13.87	14.34
	6H	13.26	13.76	13.77	14.26	14.74	14.27	14.76	14.77	15.26	15.74
	8H	13.98	14.43	14.51	14.94	15.44	15.03	15.48	15.56	16.00	16.49
	12H	14.67	15.07	15.19	15.56	16.14	15.82	16.22	16.34	16.71	17.29
12H	4H	12.08	12.62	12.57	13.10	13.58	12.92	13.46	13.41	13.94	14.41
	6H	13.58	14.03	14.11	14.55	15.04	14.49	14.94	15.02	15.46	15.95
	8H	14.49	14.88	15.01	15.38	15.95	15.40	15.80	15.92	16.29	16.86