

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: P1059023

Luminaire Tested: S123RDRP-S1000D840-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059023
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S1000D840-X4F0-XX-UDD-BVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

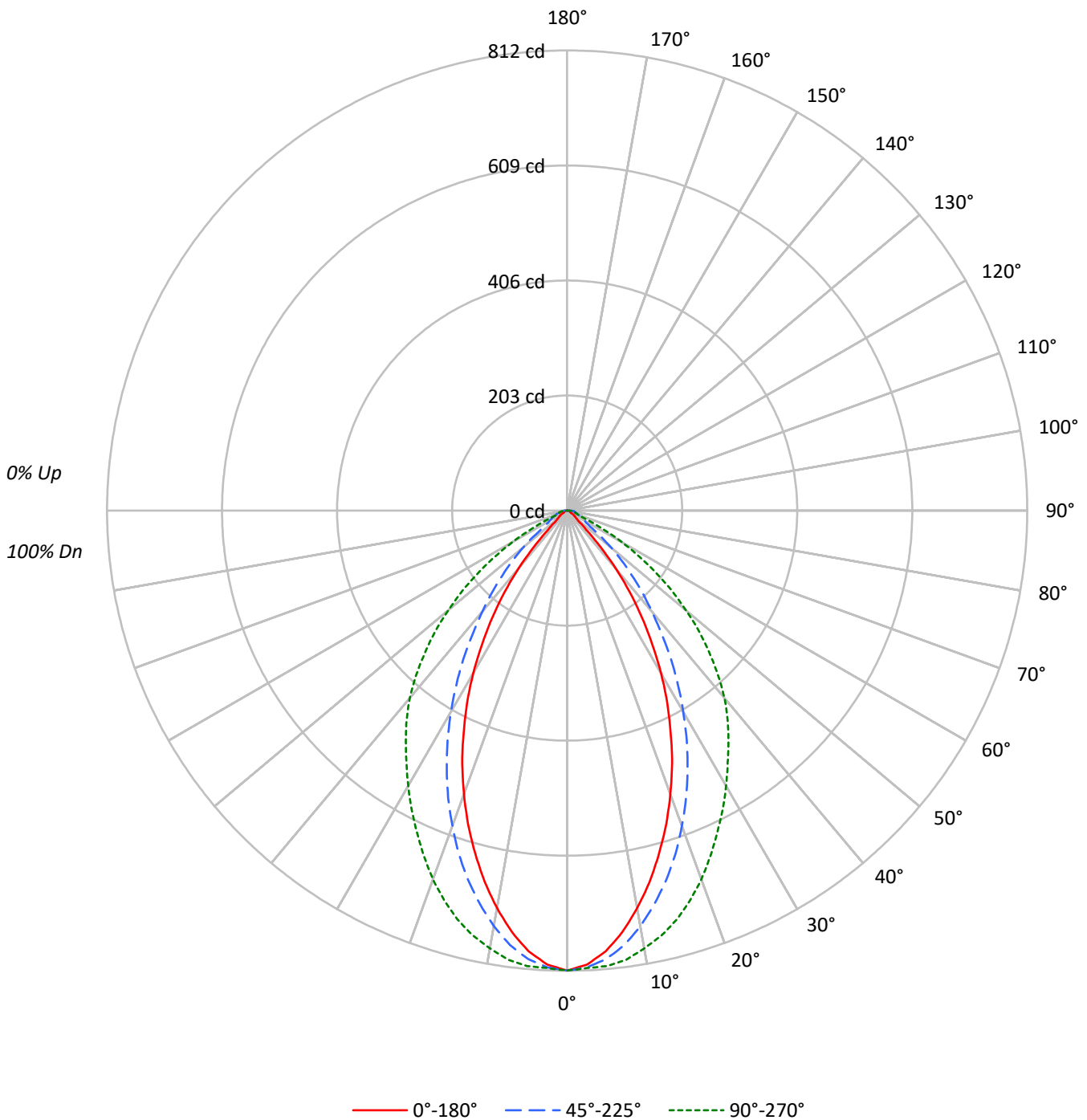
Lumens per Lamp: N/A
Luminaire Lumens: 974.9 lumens
Efficiency: N/A
Efficacy: 27.9 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90					90			
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81					81			
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73					73			
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66					66			
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60					60			
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55					55			
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50					50			
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46					46			
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43					43			
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40					40			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9530	9530	9530
5°	9201	9361	9509
10°	8493	8878	9352
15°	7619	8207	9082
20°	6653	7398	8654
25°	5596	6512	8120
30°	4492	5552	7605
35°	3291	4571	7116
40°	2036	3558	6620
45°	784	2679	5894
50°	385	1836	4987
55°	305	1015	3912
60°	204	845	2623
65°	172	759	1173
70°	172	683	683
75°	227	730	676
80°	338	926	757
85°	498	1509	997

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5894 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.4	7.6
10°-20°	190.5	19.5
20°-30°	236.4	24.3
30°-40°	211.8	21.7
40°-50°	139.3	14.3
50°-60°	69.8	7.2
60°-70°	27.5	2.8
70°-80°	15.4	1.6
80°-90°	9.7	1.0
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°	501.4	51.4
0°-40°	713.2	73.2
0°-60°	922.2	94.6
0°-90°	974.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	974.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	812	812	812	812	812	
5°	781	793	794	799	807	72
15°	627	647	675	721	747	175
25°	432	459	503	573	627	197
35°	230	261	319	417	496	142
45°	47	78	161	272	355	45
55°	15	17	50	134	191	13
65°	6	17	27	35	42	6
75°	5	16	16	15	15	5
85°	4	11	11	11	7	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	811.6	811.6	811.6	811.6	811.6
2.5°	801.7	812.9	806.7	806.7	807.9
5°	780.6	793.0	794.2	799.2	806.7
7.5°	749.6	765.7	773.1	788.0	799.2
10°	712.3	729.7	744.6	770.7	784.3
12.5°	671.4	688.8	711.1	747.1	768.2
15°	626.7	646.6	675.1	721.0	747.1
17.5°	580.8	600.6	635.4	687.5	721.0
20°	532.4	554.7	592.0	651.5	692.5
22.5°	484.0	508.8	548.5	613.1	660.2
25°	431.9	459.2	502.6	573.3	626.7
27.5°	382.2	410.8	456.7	533.6	594.4
30°	331.3	359.9	409.5	492.7	560.9
32.5°	279.2	311.5	363.6	454.2	527.4
35°	229.6	260.6	318.9	417.0	496.4
37.5°	181.2	212.2	273.0	381.0	465.4
40°	132.8	165.1	232.1	346.2	431.9
42.5°	86.9	120.4	196.1	311.5	394.6
45°	47.2	78.2	161.3	271.8	354.9
47.5°	26.1	42.2	130.3	234.6	316.5
50°	21.1	23.6	100.5	199.8	273.0
52.5°	17.4	19.9	72.0	166.3	233.3
55°	14.9	17.4	49.6	134.0	191.1
57.5°	12.4	14.9	39.7	103.0	150.2
60°	8.7	14.9	36.0	75.7	111.7
62.5°	7.4	14.9	31.0	52.1	74.5
65°	6.2	17.4	27.3	34.7	42.2
67.5°	5.0	17.4	23.6	22.3	22.3
70°	5.0	17.4	19.9	18.6	19.9
72.5°	5.0	18.6	18.6	17.4	17.4
75°	5.0	16.1	16.1	14.9	14.9
77.5°	5.0	14.9	14.9	13.7	13.7
80°	5.0	13.7	13.7	12.4	11.2
82.5°	5.0	12.4	12.4	11.2	9.9
85°	3.7	11.2	11.2	11.2	7.4
87.5°	3.7	9.9	11.2	9.9	6.2
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	0.29	1.55	0.66	1.86	2.18	14.38	15.64	14.74	15.95	16.26
	3H	2.83	3.94	3.21	4.27	4.63	14.46	15.57	14.84	15.90	16.27
	4H	3.99	5.03	4.40	5.38	5.76	14.52	15.56	14.93	15.91	16.29
	6H	5.05	6.00	5.46	6.37	6.77	14.62	15.57	15.04	15.94	16.34
	8H	5.59	6.49	6.02	6.88	7.29	14.68	15.58	15.11	15.97	16.38
	12H	6.07	6.93	6.50	7.31	7.74	14.75	15.61	15.18	15.99	16.42
4H	2H	3.55	4.59	3.96	4.94	5.32	14.24	15.27	14.64	15.63	16.01
	3H	6.02	6.87	6.43	7.27	7.67	14.41	15.26	14.83	15.66	16.07
	4H	7.36	8.12	7.80	8.54	8.98	14.54	15.30	14.98	15.72	16.16
	6H	8.50	9.15	8.96	9.60	10.07	14.76	15.41	15.22	15.86	16.33
	8H	9.01	9.62	9.48	10.07	10.54	14.88	15.49	15.35	15.94	16.41
	12H	9.47	10.01	9.95	10.49	10.96	15.04	15.58	15.53	16.07	16.54
8H	4H	8.28	8.89	8.75	9.34	9.81	14.54	15.16	15.01	15.60	16.07
	6H	9.88	10.38	10.39	10.88	11.36	14.88	15.38	15.38	15.87	16.36
	8H	10.71	11.16	11.23	11.68	12.17	15.10	15.56	15.63	16.07	16.56
	12H	11.49	11.89	12.01	12.38	12.96	15.43	15.83	15.95	16.32	16.90
12H	4H	8.45	8.99	8.93	9.47	9.94	14.53	15.07	15.02	15.56	16.03
	6H	10.20	10.65	10.72	11.17	11.66	14.91	15.36	15.43	15.87	16.37
	8H	11.21	11.61	11.72	12.10	12.67	15.22	15.62	15.73	16.11	16.68