

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: P1059068

Luminaire Tested: S123RDRP-S1000D940-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059068
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-S1000D940-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, 90 CRI LEDS
Ballast/Driver: -

Summary

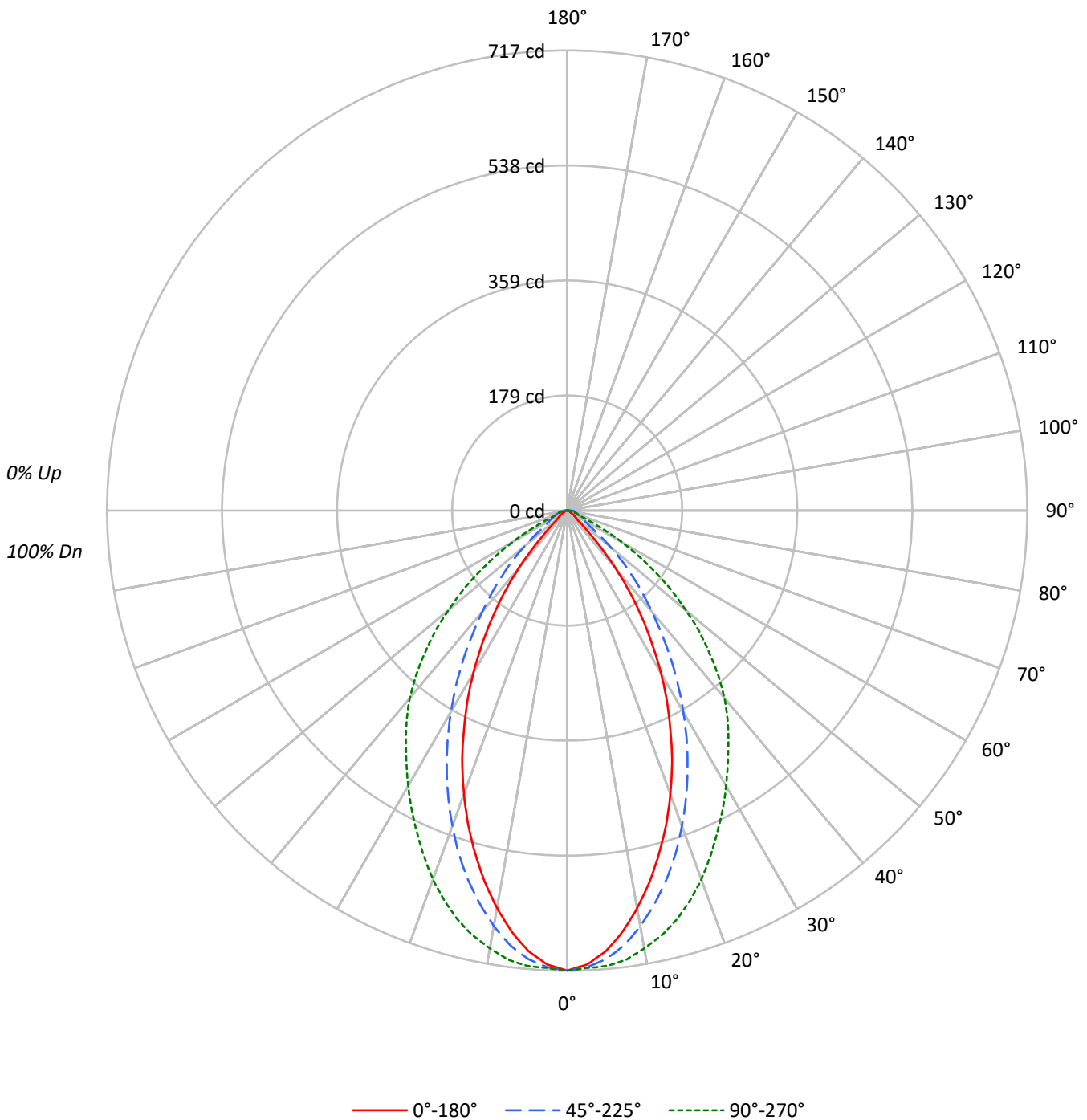
Lumens per Lamp: N/A
Luminaire Lumens: 860.8 lumens
Efficiency: N/A
Efficacy: 24.6 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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°	8416	8416	8416
5°	8125	8266	8396
10°	7500	7840	8258
15°	6727	7247	8020
20°	5874	6532	7641
25°	4940	5750	7170
30°	3967	4903	6716
35°	2906	4037	6283
40°	1798	3141	5845
45°	691	2366	5204
50°	340	1622	4404
55°	268	897	3456
60°	181	747	2316
65°	153	670	1036
70°	151	601	601
75°	200	644	594
80°	298	818	669
85°	445	1334	889

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5204 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.7	7.6
10°-20°	168.2	19.5
20°-30°	208.8	24.3
30°-40°	187.0	21.7
40°-50°	123.0	14.3
50°-60°	61.6	7.2
60°-70°	24.3	2.8
70°-80°	13.6	1.6
80°-90°	8.6	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°	442.7	51.4
0°-40°	629.8	73.2
0°-60°	814.3	94.6
0°-90°	860.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	860.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	717	717	717	717	717	
5°	689	700	701	706	712	64
15°	553	571	596	637	660	154
25°	381	405	444	506	553	174
35°	203	230	282	368	438	126
45°	42	69	142	240	313	39
55°	13	15	44	118	169	12
65°	6	15	24	31	37	6
75°	4	14	14	13	13	5
85°	3	10	10	10	7	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	716.7	716.7	716.7	716.7	716.7
2.5°	707.9	717.8	712.3	712.3	713.4
5°	689.3	700.2	701.3	705.7	712.3
7.5°	661.9	676.1	682.7	695.8	705.7
10°	629.0	644.3	657.5	680.5	692.6
12.5°	592.8	608.2	627.9	659.7	678.3
15°	553.4	570.9	596.1	636.7	659.7
17.5°	512.8	530.4	561.1	607.1	636.7
20°	470.1	489.8	522.7	575.3	611.5
22.5°	427.4	449.3	484.3	541.3	583.0
25°	381.3	405.4	443.8	506.3	553.4
27.5°	337.5	362.7	403.3	471.2	524.9
30°	292.6	317.8	361.6	435.0	495.3
32.5°	246.6	275.0	321.1	401.1	465.7
35°	202.7	230.1	281.6	368.2	438.3
37.5°	160.0	187.4	241.1	336.4	410.9
40°	117.3	145.7	204.9	305.7	381.3
42.5°	76.7	106.3	173.1	275.0	348.5
45°	41.6	69.0	142.5	240.0	313.4
47.5°	23.0	37.3	115.1	207.1	279.4
50°	18.6	20.8	88.8	176.4	241.1
52.5°	15.3	17.5	63.6	146.8	206.0
55°	13.1	15.3	43.8	118.3	168.8
57.5°	11.0	13.1	35.1	91.0	132.6
60°	7.7	13.1	31.8	66.8	98.6
62.5°	6.6	13.1	27.4	46.0	65.7
65°	5.5	15.3	24.1	30.7	37.3
67.5°	4.4	15.3	20.8	19.7	19.7
70°	4.4	15.3	17.5	16.4	17.5
72.5°	4.4	16.4	16.4	15.3	15.3
75°	4.4	14.2	14.2	13.1	13.1
77.5°	4.4	13.1	13.1	12.1	12.1
80°	4.4	12.1	12.1	11.0	9.9
82.5°	4.4	11.0	11.0	9.9	8.8
85°	3.3	9.9	9.9	9.9	6.6
87.5°	3.3	8.8	9.9	8.8	5.5
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	0.00	1.10	0.21	1.41	1.73	13.95	15.21	14.31	15.52	15.83
	3H	2.37	3.48	2.75	3.81	4.18	14.03	15.14	14.41	15.47	15.84
	4H	3.54	4.57	3.94	4.93	5.31	14.09	15.13	14.49	15.48	15.86
	6H	4.60	5.55	5.01	5.92	6.31	14.19	15.14	14.60	15.51	15.91
	8H	5.14	6.04	5.57	6.43	6.84	14.25	15.15	14.68	15.54	15.95
	12H	5.62	6.48	6.06	6.87	7.30	14.32	15.18	14.75	15.56	15.99
4H	2H	3.11	4.15	3.52	4.50	4.88	13.81	14.84	14.21	15.20	15.58
	3H	5.57	6.42	5.98	6.82	7.23	13.98	14.83	14.40	15.23	15.64
	4H	6.91	7.67	7.35	8.09	8.54	14.11	14.87	14.54	15.29	15.73
	6H	8.05	8.71	8.52	9.15	9.62	14.33	14.98	14.79	15.43	15.90
	8H	8.57	9.18	9.04	9.63	10.10	14.45	15.06	14.92	15.51	15.98
	12H	9.03	9.57	9.51	10.05	10.53	14.61	15.15	15.10	15.64	16.11
8H	4H	7.83	8.44	8.30	8.89	9.36	14.11	14.72	14.58	15.17	15.64
	6H	9.44	9.94	9.94	10.44	10.92	14.44	14.94	14.95	15.44	15.92
	8H	10.27	10.72	10.80	11.24	11.73	14.67	15.13	15.20	15.64	16.13
	12H	11.06	11.46	11.57	11.95	12.52	15.00	15.40	15.52	15.90	16.47
12H	4H	8.00	8.54	8.49	9.02	9.50	14.10	14.64	14.59	15.12	15.60
	6H	9.76	10.21	10.28	10.73	11.22	14.48	14.93	15.00	15.44	15.94
	8H	10.77	11.17	11.29	11.67	12.24	14.79	15.19	15.30	15.68	16.25