

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: P1059617

Luminaire Tested: S123RDR-H340D930-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059617
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: S123RDR-H340D930-X4F0-XX-UDD-BVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

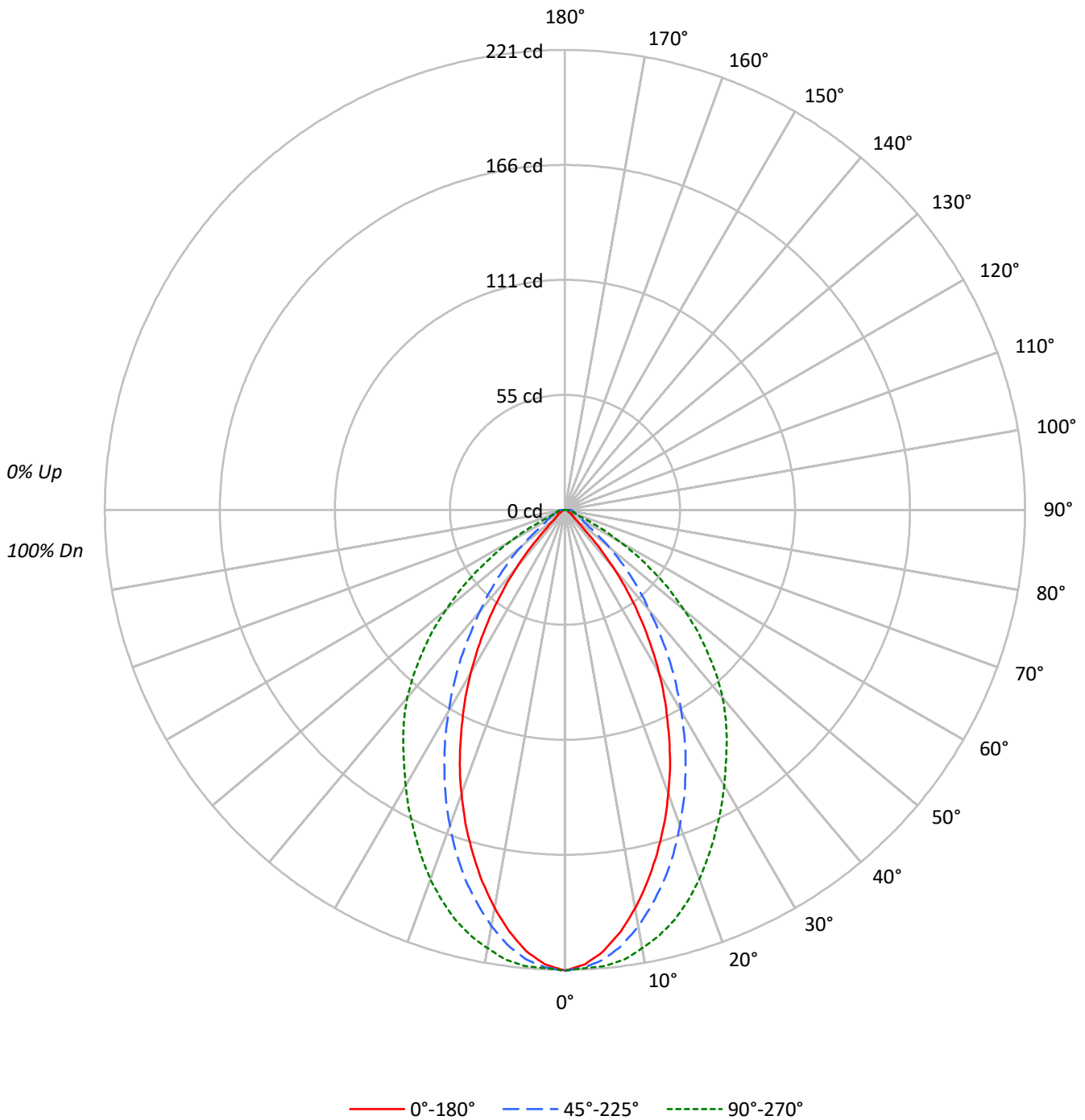
Lumens per Lamp: N/A
Luminaire Lumens: 265.9 lumens
Efficiency: N/A
Efficacy: 22.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	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	98	98	96	95	95	93	92	90
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2600	2600	2600
5°	2510	2554	2593
10°	2317	2422	2550
15°	2079	2239	2478
20°	1814	2018	2361
25°	1526	1776	2216
30°	1226	1515	2075
35°	897	1247	1941
40°	555	970	1806
45°	214	731	1607
50°	106	501	1361
55°	84	276	1067
60°	56	230	716
65°	47	206	320
70°	48	185	185
75°	64	200	186
80°	95	250	203
85°	135	404	269

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1607 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.3	7.6
10°-20°	52.0	19.5
20°-30°	64.5	24.3
30°-40°	57.8	21.7
40°-50°	38.0	14.3
50°-60°	19.0	7.2
60°-70°	7.5	2.8
70°-80°	4.2	1.6
80°-90°	2.6	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°	136.8	51.4
0°-40°	194.6	73.2
0°-60°	251.6	94.6
0°-90°	265.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	265.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	221	221	221	221	221	
5°	213	216	217	218	220	20
15°	171	176	184	197	204	48
25°	118	125	137	156	171	54
35°	63	71	87	114	135	39
45°	13	21	44	74	97	12
55°	4	5	14	37	52	4
65°	2	5	7	10	12	2
75°	1	4	4	4	4	1
85°	1	3	3	3	2	1
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	221.4	221.4	221.4	221.4	221.4
2.5°	218.7	221.7	220.0	220.0	220.4
5°	212.9	216.3	216.7	218.0	220.0
7.5°	204.5	208.9	210.9	215.0	218.0
10°	194.3	199.1	203.1	210.2	213.9
12.5°	183.1	187.9	194.0	203.8	209.5
15°	171.0	176.4	184.2	196.7	203.8
17.5°	158.4	163.8	173.3	187.5	196.7
20°	145.2	151.3	161.5	177.7	188.9
22.5°	132.0	138.8	149.6	167.2	180.1
25°	117.8	125.3	137.1	156.4	171.0
27.5°	104.3	112.1	124.6	145.6	162.2
30°	90.4	98.2	111.7	134.4	153.0
32.5°	76.2	85.0	99.2	123.9	143.9
35°	62.6	71.1	87.0	113.7	135.4
37.5°	49.4	57.9	74.5	103.9	126.9
40°	36.2	45.0	63.3	94.4	117.8
42.5°	23.7	32.8	53.5	85.0	107.6
45°	12.9	21.3	44.0	74.1	96.8
47.5°	7.1	11.5	35.5	64.0	86.3
50°	5.8	6.4	27.4	54.5	74.5
52.5°	4.7	5.4	19.6	45.4	63.6
55°	4.1	4.7	13.5	36.6	52.1
57.5°	3.4	4.1	10.8	28.1	41.0
60°	2.4	4.1	9.8	20.6	30.5
62.5°	2.0	4.1	8.5	14.2	20.3
65°	1.7	4.7	7.4	9.5	11.5
67.5°	1.4	4.7	6.4	6.1	6.1
70°	1.4	4.7	5.4	5.1	5.4
72.5°	1.4	5.1	5.1	4.7	4.7
75°	1.4	4.4	4.4	4.1	4.1
77.5°	1.4	4.1	4.1	3.7	3.7
80°	1.4	3.7	3.7	3.4	3.0
82.5°	1.4	3.4	3.4	3.0	2.7
85°	1.0	3.0	3.0	3.0	2.0
87.5°	1.0	2.7	3.0	2.7	1.7
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	0.00	0.00	0.00	0.00	9.87	11.12	10.23	11.44	11.75
	3H	0.00	0.00	0.00	0.00	0.14	9.95	11.06	10.33	11.39	11.76
	4H	0.00	0.55	0.00	0.90	1.29	10.01	11.05	10.41	11.40	11.78
	6H	0.59	1.54	1.01	1.91	2.31	10.11	11.06	10.52	11.43	11.82
	8H	1.14	2.04	1.57	2.43	2.84	10.16	11.06	10.60	11.46	11.86
	12H	1.61	2.47	2.05	2.86	3.29	10.23	11.09	10.66	11.47	11.91
4H	2H	0.00	0.07	0.00	0.42	0.81	9.73	10.76	10.13	11.11	11.50
	3H	1.50	2.34	1.91	2.75	3.15	9.90	10.75	10.31	11.15	11.56
	4H	2.86	3.61	3.29	4.03	4.48	10.03	10.79	10.47	11.21	11.65
	6H	4.00	4.66	4.47	5.10	5.57	10.24	10.90	10.71	11.34	11.81
	8H	4.52	5.13	4.99	5.58	6.05	10.36	10.98	10.84	11.42	11.90
	12H	4.97	5.51	5.46	6.00	6.47	10.52	11.06	11.01	11.54	12.02
8H	4H	3.78	4.39	4.25	4.83	5.31	10.03	10.65	10.50	11.09	11.56
	6H	5.38	5.88	5.88	6.38	6.86	10.36	10.86	10.86	11.36	11.84
	8H	6.21	6.66	6.74	7.18	7.67	10.58	11.03	11.11	11.55	12.04
	12H	6.98	7.38	7.49	7.87	8.44	10.90	11.30	11.42	11.80	12.37
12H	4H	3.94	4.48	4.43	4.97	5.44	10.02	10.56	10.51	11.05	11.52
	6H	5.69	6.14	6.22	6.66	7.15	10.39	10.84	10.91	11.36	11.85
	8H	6.71	7.11	7.22	7.60	8.17	10.70	11.09	11.21	11.59	12.16