

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: P1059619

Luminaire Tested: S123RDR-H340D930-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059619
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H340D930-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

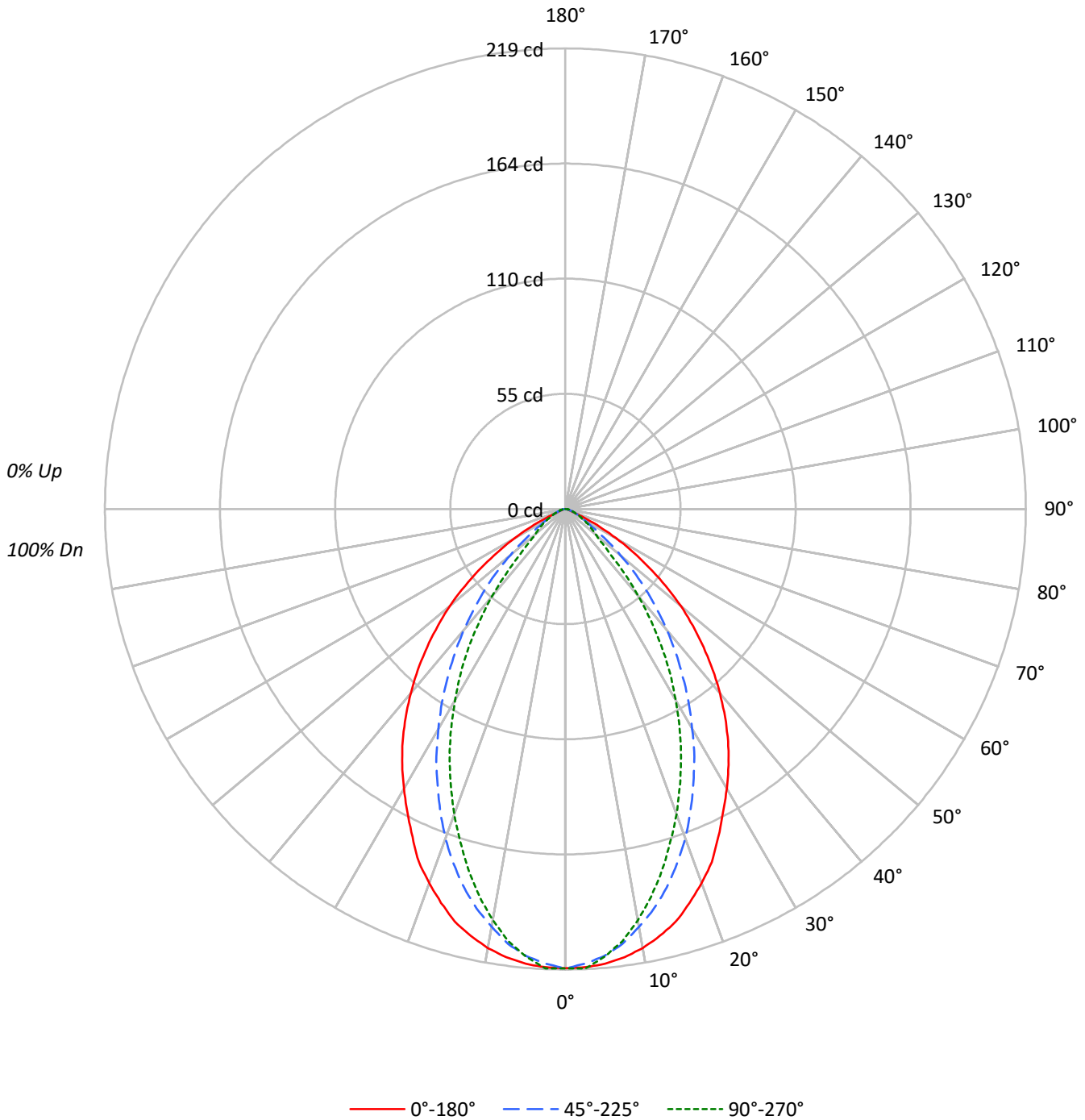
Lumens per Lamp: N/A
Luminaire Lumens: 282.0 lumens
Efficiency: N/A
Efficacy: 24.1 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91				
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82				
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73				
4	92	83	76	71	90	82	75	70	79	74	70	77	73	69	75	71	68	66				
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60				
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55				
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50				
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46				
9	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42				
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2565	2565	2565
5°	2559	2514	2519
10°	2528	2406	2367
15°	2470	2265	2161
20°	2366	2083	1931
25°	2230	1866	1687
30°	2081	1637	1421
35°	1934	1396	1144
40°	1752	1151	829
45°	1544	893	500
50°	1310	623	340
55°	997	375	285
60°	651	237	223
65°	272	178	178
70°	93	127	141
75°	77	91	109
80°	47	68	95
85°	40	40	94

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1544 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.2	7.2
10°-20°	52.8	18.7
20°-30°	67.7	24.0
30°-40°	63.5	22.5
40°-50°	44.3	15.7
50°-60°	22.9	8.1
60°-70°	7.8	2.8
70°-80°	2.2	0.8
80°-90°	0.5	0.2
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°	140.7	49.9
0°-40°	204.2	72.4
0°-60°	271.4	96.3
0°-90°	282.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	282.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	218	218	218	218	218	
5°	217	217	213	214	214	21
15°	203	198	186	180	178	57
25°	172	161	144	134	130	79
35°	135	118	97	85	80	84
45°	93	76	54	37	30	72
55°	49	36	18	14	14	44
65°	10	8	6	6	6	12
75°	2	2	2	2	2	2
85°	0	0	0	0	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	218.4	218.4	218.4	218.4	218.4
2.5°	218.1	218.4	216.4	218.4	218.7
5°	217.1	216.7	213.3	214.4	213.7
7.5°	215.0	214.0	208.6	207.3	207.3
10°	212.0	210.0	201.8	199.5	198.5
12.5°	207.9	205.2	194.7	190.3	188.7
15°	203.2	198.1	186.3	180.2	177.8
17.5°	196.4	189.7	176.8	169.7	166.0
20°	189.3	180.9	166.7	158.2	154.5
22.5°	181.9	171.8	155.5	146.4	142.3
25°	172.1	161.3	144.0	134.2	130.2
27.5°	162.6	151.1	132.9	121.7	117.7
30°	153.5	140.0	120.7	109.9	104.8
32.5°	144.4	129.2	109.2	97.4	92.6
35°	134.9	118.3	97.4	84.9	79.8
37.5°	124.8	107.9	86.2	72.7	66.6
40°	114.3	96.7	75.1	59.8	54.1
42.5°	103.8	86.6	63.9	48.3	41.6
45°	93.0	76.1	53.8	37.2	30.1
47.5°	82.2	65.6	44.0	27.0	22.7
50°	71.7	55.8	34.1	19.9	18.6
52.5°	60.2	46.3	25.7	16.6	16.2
55°	48.7	36.5	18.3	14.2	13.9
57.5°	38.5	28.4	13.2	11.8	11.5
60°	27.7	20.3	10.1	9.8	9.5
62.5°	18.3	13.9	8.1	7.8	7.8
65°	9.8	8.5	6.4	6.1	6.4
67.5°	4.1	4.7	4.7	5.1	5.1
70°	2.7	3.0	3.7	4.1	4.1
72.5°	2.0	2.4	2.7	3.0	3.0
75°	1.7	1.7	2.0	2.4	2.4
77.5°	1.0	1.4	1.4	1.7	2.0
80°	0.7	1.0	1.0	1.4	1.4
82.5°	0.3	0.7	0.7	1.0	1.0
85°	0.3	0.3	0.3	0.3	0.7
87.5°	0.0	0.0	0.0	0.0	0.3
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	9.60	10.86	9.97	11.17	11.49	3.10	4.36	3.46	4.67	4.98
	3H	9.56	10.66	9.94	11.00	11.36	3.89	5.00	4.27	5.33	5.69
	4H	9.50	10.53	9.91	10.88	11.27	4.09	5.12	4.49	5.47	5.86
	6H	9.43	10.38	9.85	10.75	11.14	4.24	5.18	4.65	5.55	5.94
	8H	9.39	10.28	9.82	10.67	11.08	4.27	5.16	4.70	5.55	5.96
	12H	9.35	10.20	9.78	10.58	11.01	4.29	5.14	4.72	5.52	5.96
4H	2H	9.45	10.48	9.85	10.83	11.21	3.35	4.38	3.75	4.73	5.12
	3H	9.43	10.27	9.85	10.67	11.08	4.27	5.11	4.69	5.51	5.92
	4H	9.38	10.12	9.82	10.55	10.99	4.55	5.29	4.99	5.71	6.16
	6H	9.33	9.96	9.79	10.41	10.88	4.77	5.41	5.24	5.86	6.33
	8H	9.27	9.87	9.74	10.32	10.79	4.83	5.43	5.30	5.88	6.35
	12H	9.23	9.75	9.71	10.23	10.71	4.87	5.40	5.36	5.88	6.35
8H	4H	9.27	9.86	9.74	10.31	10.79	4.53	5.13	5.01	5.58	6.05
	6H	9.21	9.69	9.71	10.19	10.67	4.81	5.30	5.32	5.79	6.28
	8H	9.16	9.59	9.68	10.11	10.60	4.92	5.35	5.44	5.87	6.36
	12H	9.12	9.50	9.63	10.00	10.57	4.99	5.37	5.51	5.87	6.44
12H	4H	9.22	9.75	9.71	10.23	10.71	4.50	5.02	4.99	5.51	5.98
	6H	9.15	9.59	9.67	10.10	10.60	4.77	5.21	5.30	5.73	6.22
	8H	9.12	9.51	9.64	10.00	10.57	4.91	5.30	5.43	5.79	6.37