

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: P1059203

Luminaire Tested: S123RDRP-S340D927-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059203
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-S340D927-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: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

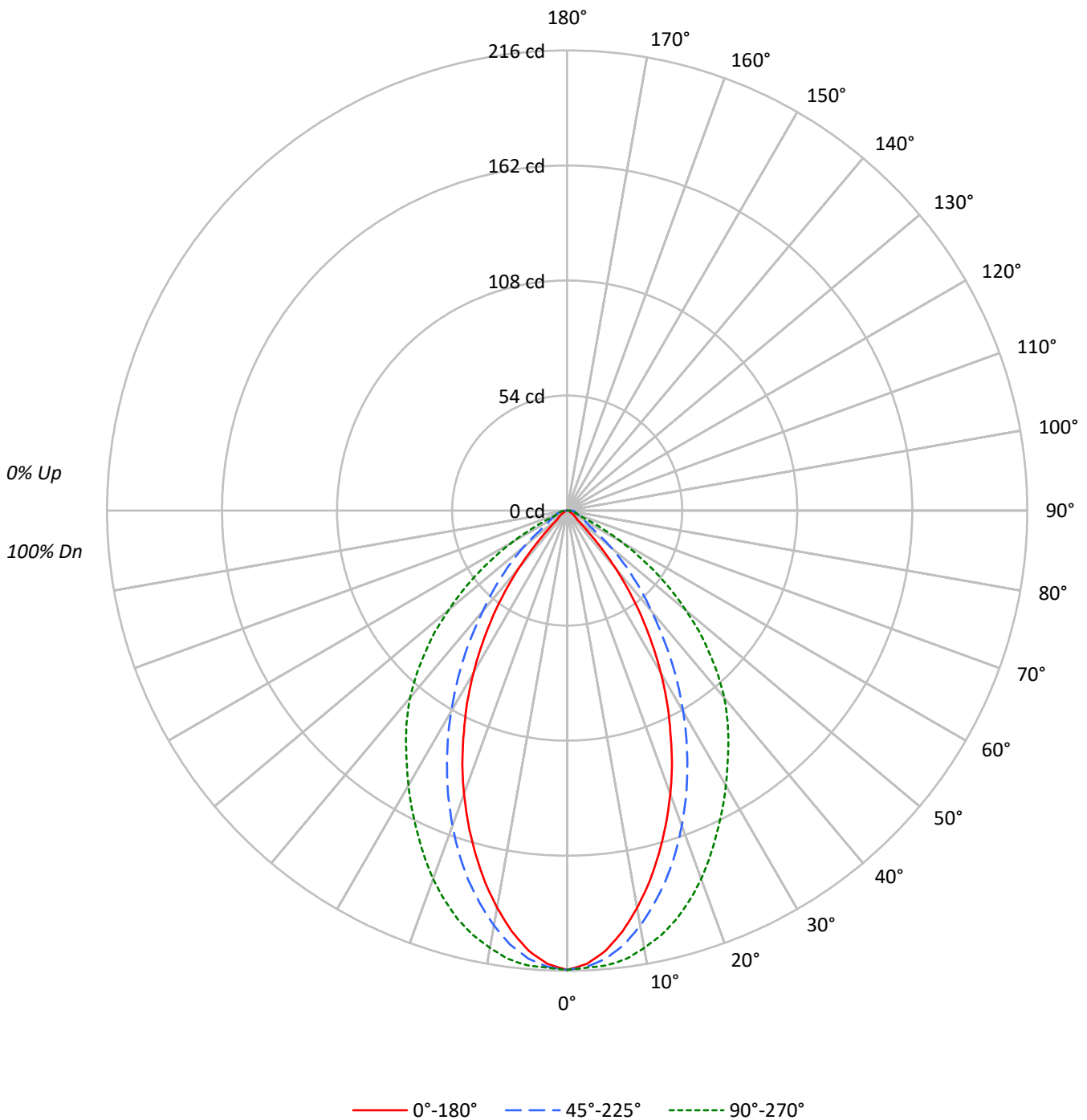
Lumens per Lamp: N/A
Luminaire Lumens: 259.0 lumens
Efficiency: N/A
Efficacy: 20.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
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	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°	2532	2532	2532
5°	2445	2487	2526
10°	2257	2358	2485
15°	2024	2181	2413
20°	1768	1966	2299
25°	1486	1730	2157
30°	1193	1475	2020
35°	874	1214	1891
40°	541	946	1758
45°	208	712	1566
50°	102	488	1324
55°	82	270	1040
60°	54	225	698
65°	44	203	311
70°	45	182	182
75°	59	195	181
80°	88	243	203
85°	135	404	269

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1566 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.8	7.6
10°-20°	50.6	19.5
20°-30°	62.8	24.3
30°-40°	56.3	21.7
40°-50°	37.0	14.3
50°-60°	18.5	7.2
60°-70°	7.3	2.8
70°-80°	4.1	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°	133.2	51.4
0°-40°	189.5	73.2
0°-60°	245.0	94.6
0°-90°	259.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	259.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	216	216	216	216	216	
5°	207	211	211	212	214	19
15°	166	172	179	192	198	46
25°	115	122	134	152	166	52
35°	61	69	85	111	132	38
45°	12	21	43	72	94	12
55°	4	5	13	36	51	4
65°	2	5	7	9	11	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°	215.6	215.6	215.6	215.6	215.6
2.5°	213.0	216.0	214.3	214.3	214.7
5°	207.4	210.7	211.0	212.3	214.3
7.5°	199.2	203.4	205.4	209.4	212.3
10°	189.3	193.9	197.8	204.8	208.4
12.5°	178.4	183.0	188.9	198.5	204.1
15°	166.5	171.8	179.4	191.6	198.5
17.5°	154.3	159.6	168.8	182.7	191.6
20°	141.5	147.4	157.3	173.1	184.0
22.5°	128.6	135.2	145.7	162.9	175.4
25°	114.7	122.0	133.5	152.3	166.5
27.5°	101.6	109.1	121.3	141.8	157.9
30°	88.0	95.6	108.8	130.9	149.0
32.5°	74.2	82.8	96.6	120.7	140.1
35°	61.0	69.2	84.7	110.8	131.9
37.5°	48.1	56.4	72.5	101.2	123.6
40°	35.3	43.9	61.7	92.0	114.7
42.5°	23.1	32.0	52.1	82.8	104.9
45°	12.5	20.8	42.9	72.2	94.3
47.5°	6.9	11.2	34.6	62.3	84.1
50°	5.6	6.3	26.7	53.1	72.5
52.5°	4.6	5.3	19.1	44.2	62.0
55°	4.0	4.6	13.2	35.6	50.8
57.5°	3.3	4.0	10.6	27.4	39.9
60°	2.3	4.0	9.6	20.1	29.7
62.5°	2.0	4.0	8.2	13.8	19.8
65°	1.6	4.6	7.3	9.2	11.2
67.5°	1.3	4.6	6.3	5.9	5.9
70°	1.3	4.6	5.3	4.9	5.3
72.5°	1.3	4.9	4.9	4.6	4.6
75°	1.3	4.3	4.3	4.0	4.0
77.5°	1.3	4.0	4.0	3.6	3.6
80°	1.3	3.6	3.6	3.3	3.0
82.5°	1.3	3.3	3.3	3.0	2.6
85°	1.0	3.0	3.0	3.0	2.0
87.5°	1.0	2.6	3.0	2.6	1.6
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	9.78	11.04	10.15	11.35	11.67
	3H	0.00	0.00	0.00	0.00	0.03	9.86	10.97	10.24	11.30	11.67
	4H	0.00	0.41	0.00	0.76	1.14	9.92	10.96	10.33	11.31	11.69
	6H	0.41	1.36	0.83	1.74	2.13	10.02	10.97	10.43	11.34	11.74
	8H	0.94	1.84	1.38	2.24	2.64	10.08	10.98	10.51	11.37	11.77
	12H	1.43	2.29	1.86	2.67	3.10	10.15	11.01	10.58	11.39	11.82
4H	2H	0.00	0.03	0.00	0.38	0.76	9.64	10.68	10.04	11.03	11.41
	3H	1.41	2.26	1.83	2.66	3.07	9.81	10.66	10.22	11.06	11.47
	4H	2.76	3.52	3.20	3.94	4.38	9.94	10.70	10.38	11.12	11.56
	6H	3.89	4.54	4.35	4.99	5.46	10.16	10.81	10.62	11.26	11.73
	8H	4.39	5.00	4.86	5.45	5.92	10.28	10.89	10.75	11.34	11.81
	12H	4.85	5.39	5.34	5.87	6.35	10.44	10.98	10.93	11.47	11.94
8H	4H	3.68	4.29	4.15	4.74	5.21	9.95	10.56	10.42	11.00	11.48
	6H	5.27	5.77	5.77	6.27	6.75	10.27	10.77	10.78	11.27	11.75
	8H	6.09	6.54	6.62	7.06	7.55	10.50	10.95	11.03	11.47	11.96
	12H	6.88	7.28	7.40	7.78	8.35	10.83	11.23	11.35	11.73	12.30
12H	4H	3.85	4.39	4.34	4.87	5.35	9.93	10.47	10.42	10.96	11.43
	6H	5.58	6.04	6.11	6.55	7.04	10.30	10.76	10.83	11.27	11.76
	8H	6.59	6.99	7.11	7.49	8.06	10.62	11.02	11.13	11.51	12.08