

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: P1059575

Luminaire Tested: S123RDR-H340D830-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059575
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H340D830-X4F0-XX-UDD-SVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

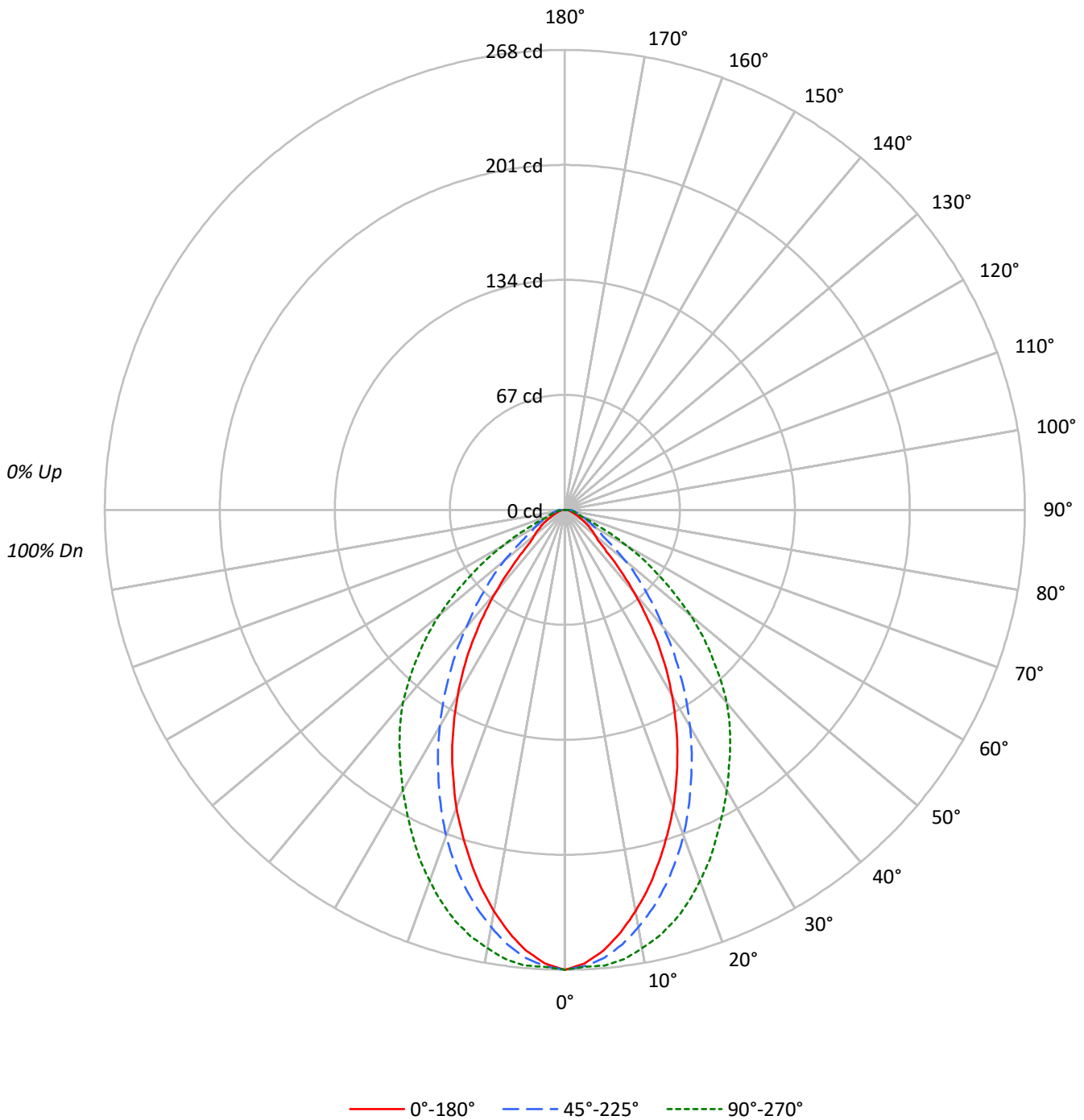
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 359.0 lumens
Efficiency: N/A
Efficacy: 30.7 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 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				100
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79				79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				71
4	91	81	74	69	88	80	73	68	77	72	67	75	70	66	73	69	66	64				64
5	85	74	67	61	83	73	66	61	71	65	61	69	64	60	68	63	59	58				58
6	79	68	61	56	78	67	60	55	66	60	55	64	59	54	63	58	54	52				52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48				48
8	70	58	51	46	69	58	51	46	57	50	46	56	50	46	54	49	45	44				44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40				40
10	62	51	44	39	61	50	44	39	50	43	39	49	43	39	48	43	39	37				37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3147	3147	3147
5°	3040	3091	3141
10°	2832	2944	3093
15°	2578	2753	3011
20°	2308	2528	2875
25°	2012	2256	2717
30°	1692	1978	2557
35°	1346	1677	2407
40°	960	1367	2249
45°	571	1098	2014
50°	422	837	1745
55°	352	569	1386
60°	284	470	975
65°	228	403	522
70°	189	350	323
75°	177	336	304
80°	183	372	291
85°	269	525	364

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2014 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.6	6.9
10°-20°	64.0	17.8
20°-30°	81.6	22.7
30°-40°	76.8	21.4
40°-50°	55.1	15.4
50°-60°	31.6	8.8
60°-70°	14.5	4.0
70°-80°	7.3	2.0
80°-90°	3.5	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°	170.2	47.4
0°-40°	246.9	68.8
0°-60°	333.7	93.0
0°-90°	359.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	359.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	268	268	268	268	268	
5°	258	263	262	264	266	24
15°	212	220	226	239	248	59
25°	155	162	174	193	210	71
35°	94	101	117	144	168	58
45°	34	42	66	97	121	29
55°	17	18	28	51	68	15
65°	8	11	14	16	19	8
75°	4	8	7	7	7	4
85°	2	4	4	4	3	2
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	268.0	268.0	268.0	268.0	268.0
2.5°	264.5	268.4	266.1	266.1	266.5
5°	257.9	262.9	262.2	264.1	266.5
7.5°	248.5	253.9	255.5	260.2	264.1
10°	237.5	243.8	246.9	254.3	259.4
12.5°	225.4	232.4	237.5	246.9	254.3
15°	212.1	219.5	226.5	238.7	247.7
17.5°	198.4	205.8	214.8	228.9	239.5
20°	184.7	192.1	202.3	217.2	230.1
22.5°	169.8	177.2	188.2	205.0	220.7
25°	155.3	162.4	174.1	192.9	209.7
27.5°	140.1	147.1	160.0	180.4	199.2
30°	124.8	131.9	145.9	167.9	188.6
32.5°	109.6	116.2	131.5	155.7	178.0
35°	93.9	100.6	117.0	143.6	167.9
37.5°	77.9	84.5	103.7	132.6	157.7
40°	62.6	70.0	89.2	121.7	146.7
42.5°	47.7	55.6	77.5	109.9	134.2
45°	34.4	41.9	66.1	97.4	121.3
47.5°	26.2	30.1	56.0	84.9	108.8
50°	23.1	23.5	45.8	73.6	95.5
52.5°	20.0	20.3	35.6	62.6	81.4
55°	17.2	17.6	27.8	51.3	67.7
57.5°	14.5	15.3	22.7	40.7	54.4
60°	12.1	13.7	20.0	30.9	41.5
62.5°	9.8	12.5	17.2	22.7	29.7
65°	8.2	11.3	14.5	16.0	18.8
67.5°	6.7	10.6	12.1	11.3	11.3
70°	5.5	9.4	10.2	9.4	9.4
72.5°	4.7	9.0	8.6	7.8	7.8
75°	3.9	7.8	7.4	6.7	6.7
77.5°	3.5	6.7	6.3	5.9	5.5
80°	2.7	5.5	5.5	5.1	4.3
82.5°	2.3	4.7	4.7	4.3	3.5
85°	2.0	3.9	3.9	3.5	2.7
87.5°	1.6	3.5	3.5	3.1	2.0
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	3.98	5.30	4.35	5.61	5.93	11.19	12.51	11.56	12.82	13.14
	3H	5.39	6.56	5.77	6.89	7.25	11.43	12.60	11.81	12.93	13.29
	4H	5.94	7.03	6.35	7.38	7.77	11.53	12.62	11.94	12.98	13.36
	6H	6.40	7.40	6.81	7.77	8.16	11.64	12.64	12.06	13.01	13.41
	8H	6.58	7.53	7.01	7.92	8.32	11.69	12.64	12.12	13.03	13.43
	12H	6.77	7.68	7.20	8.06	8.49	11.74	12.65	12.17	13.03	13.46
4H	2H	5.06	6.15	5.46	6.50	6.88	11.15	12.24	11.56	12.59	12.98
	3H	6.75	7.64	7.16	8.04	8.45	11.52	12.41	11.93	12.82	13.22
	4H	7.57	8.37	8.01	8.79	9.23	11.71	12.51	12.14	12.92	13.37
	6H	8.23	8.92	8.69	9.37	9.83	11.93	12.62	12.39	13.07	13.53
	8H	8.48	9.13	8.95	9.57	10.04	12.03	12.68	12.50	13.12	13.59
	12H	8.74	9.31	9.22	9.79	10.27	12.14	12.72	12.63	13.20	13.67
8H	4H	8.01	8.65	8.48	9.10	9.57	11.75	12.40	12.22	12.84	13.32
	6H	8.96	9.49	9.46	9.99	10.47	12.09	12.62	12.59	13.11	13.59
	8H	9.42	9.90	9.94	10.41	10.91	12.27	12.75	12.80	13.27	13.76
	12H	9.90	10.32	10.42	10.82	11.39	12.50	12.93	13.02	13.42	13.99
12H	4H	8.07	8.64	8.56	9.12	9.60	11.75	12.32	12.23	12.80	13.27
	6H	9.11	9.59	9.63	10.10	10.59	12.11	12.59	12.63	13.11	13.60
	8H	9.70	10.12	10.21	10.62	11.19	12.37	12.79	12.89	13.29	13.86