

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: P1059584

Luminaire Tested: S123RDR-H340D835-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059584
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-H340D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

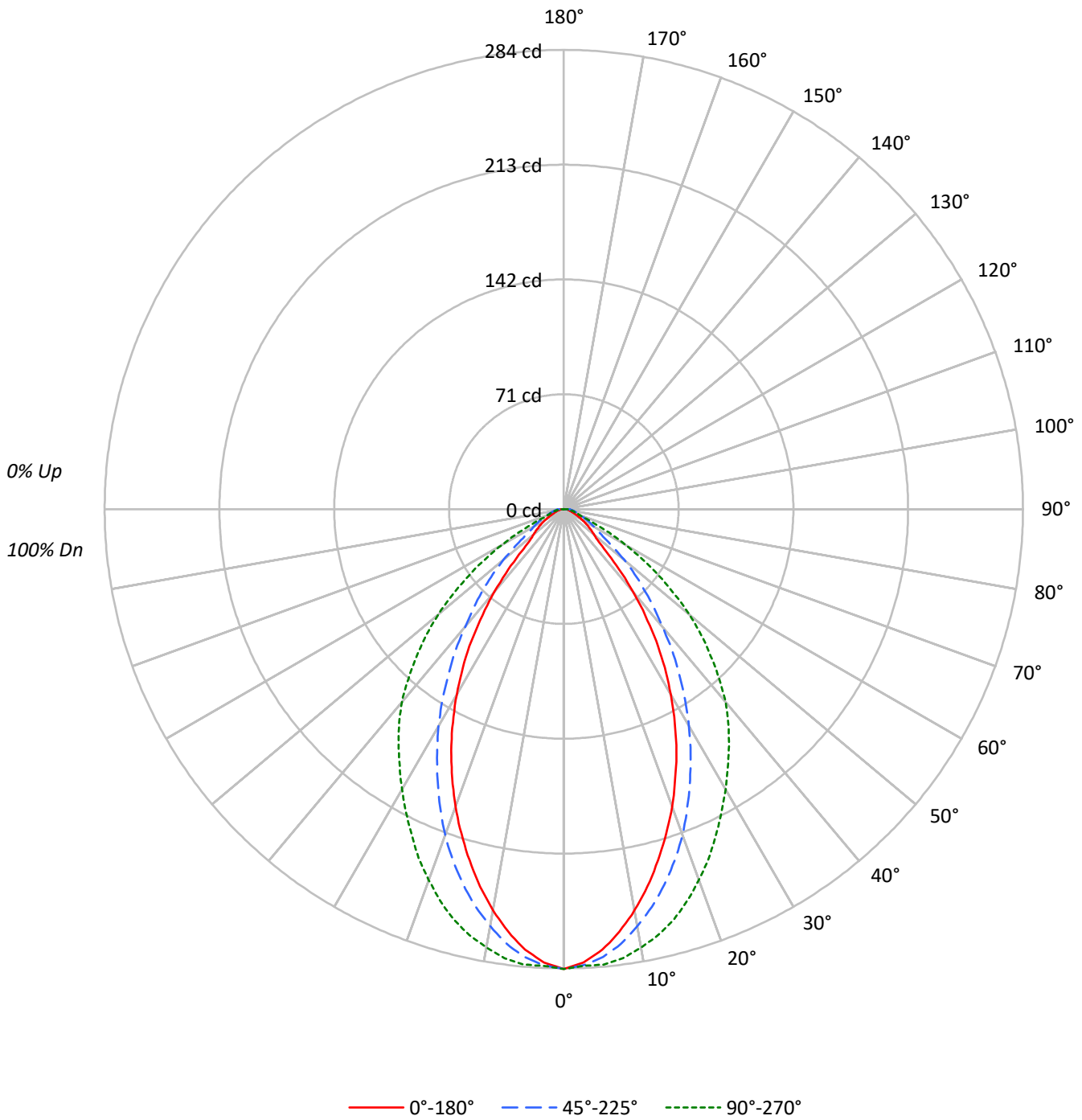
Lumens per Lamp: N/A
Luminaire Lumens: 380.9 lumens
Efficiency: N/A
Efficacy: 32.6 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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°	3340	3340	3340
5°	3225	3278	3332
10°	3005	3123	3281
15°	2735	2922	3195
20°	2448	2682	3050
25°	2135	2393	2883
30°	1795	2099	2713
35°	1428	1779	2553
40°	1018	1450	2387
45°	606	1166	2137
50°	448	888	1851
55°	375	604	1470
60°	303	498	1033
65°	242	428	553
70°	199	371	343
75°	191	358	322
80°	196	392	311
85°	283	566	391

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2137 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.1	6.9
10°-20°	67.9	17.8
20°-30°	86.6	22.7
30°-40°	81.4	21.4
40°-50°	58.5	15.4
50°-60°	33.6	8.8
60°-70°	15.3	4.0
70°-80°	7.7	2.0
80°-90°	3.8	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°	180.5	47.4
0°-40°	262.0	68.8
0°-60°	354.0	93.0
0°-90°	380.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	380.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	284	284	284	284	284	
5°	274	279	278	280	283	25
15°	225	233	240	253	263	63
25°	165	172	185	205	222	75
35°	100	107	124	152	178	62
45°	36	44	70	103	129	31
55°	18	19	30	54	72	16
65°	9	12	15	17	20	9
75°	4	8	8	7	7	5
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°	284.4	284.4	284.4	284.4	284.4
2.5°	280.6	284.8	282.3	282.3	282.7
5°	273.6	279.0	278.1	280.2	282.7
7.5°	263.6	269.4	271.1	276.1	280.2
10°	252.0	258.6	261.9	269.8	275.2
12.5°	239.1	246.6	252.0	261.9	269.8
15°	225.0	232.9	240.4	253.2	262.8
17.5°	210.5	218.4	227.9	242.8	254.1
20°	195.9	203.8	214.6	230.4	244.1
22.5°	180.2	188.1	199.7	217.5	234.1
25°	164.8	172.3	184.7	204.7	222.5
27.5°	148.6	156.1	169.8	191.4	211.3
30°	132.4	139.9	154.8	178.1	200.1
32.5°	116.2	123.3	139.5	165.2	188.9
35°	99.6	106.7	124.1	152.4	178.1
37.5°	82.6	89.7	110.0	140.7	167.3
40°	66.4	74.3	94.6	129.1	155.7
42.5°	50.6	58.9	82.2	116.7	142.4
45°	36.5	44.4	70.2	103.4	128.7
47.5°	27.8	32.0	59.4	90.1	115.4
50°	24.5	24.9	48.6	78.0	101.3
52.5°	21.2	21.6	37.8	66.4	86.3
55°	18.3	18.7	29.5	54.4	71.8
57.5°	15.4	16.2	24.1	43.2	57.7
60°	12.9	14.5	21.2	32.8	44.0
62.5°	10.4	13.3	18.3	24.1	31.5
65°	8.7	12.0	15.4	17.0	19.9
67.5°	7.1	11.2	12.9	12.0	12.0
70°	5.8	10.0	10.8	10.0	10.0
72.5°	5.0	9.5	9.1	8.3	8.3
75°	4.2	8.3	7.9	7.1	7.1
77.5°	3.7	7.1	6.6	6.2	5.8
80°	2.9	5.8	5.8	5.4	4.6
82.5°	2.5	5.0	5.0	4.6	3.7
85°	2.1	4.2	4.2	3.7	2.9
87.5°	1.7	3.7	3.7	3.3	2.1
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	4.18	5.50	4.54	5.81	6.12	11.40	12.72	11.76	13.03	13.35
	3H	5.58	6.75	5.96	7.08	7.45	11.63	12.80	12.01	13.13	13.50
	4H	6.14	7.23	6.55	7.59	7.97	11.74	12.83	12.15	13.18	13.57
	6H	6.60	7.60	7.02	7.97	8.37	11.85	12.85	12.26	13.22	13.62
	8H	6.79	7.74	7.22	8.13	8.53	11.90	12.85	12.33	13.24	13.64
	12H	6.98	7.89	7.41	8.27	8.70	11.95	12.86	12.38	13.24	13.67
4H	2H	5.26	6.35	5.66	6.70	7.08	11.36	12.45	11.76	12.80	13.18
	3H	6.94	7.84	7.36	8.24	8.64	11.73	12.62	12.14	13.03	13.43
	4H	7.78	8.58	8.21	9.00	9.44	11.91	12.71	12.35	13.13	13.58
	6H	8.43	9.13	8.90	9.57	10.04	12.14	12.83	12.60	13.27	13.74
	8H	8.69	9.34	9.16	9.78	10.25	12.24	12.88	12.71	13.33	13.80
	12H	8.95	9.52	9.44	10.00	10.48	12.35	12.92	12.84	13.41	13.88
8H	4H	8.21	8.86	8.68	9.30	9.78	11.96	12.60	12.43	13.05	13.52
	6H	9.16	9.69	9.66	10.19	10.67	12.29	12.82	12.79	13.32	13.80
	8H	9.63	10.11	10.15	10.62	11.11	12.48	12.96	13.00	13.47	13.96
	12H	10.11	10.54	10.63	11.03	11.60	12.71	13.13	13.23	13.63	14.20
12H	4H	8.27	8.84	8.76	9.33	9.80	11.95	12.52	12.44	13.01	13.48
	6H	9.31	9.79	9.83	10.30	10.79	12.32	12.79	12.84	13.31	13.80
	8H	9.91	10.33	10.42	10.82	11.39	12.58	13.00	13.09	13.50	14.07