

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: P1059628

Luminaire Tested: S123RDR-H340D935-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059628
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-H340D935-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: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

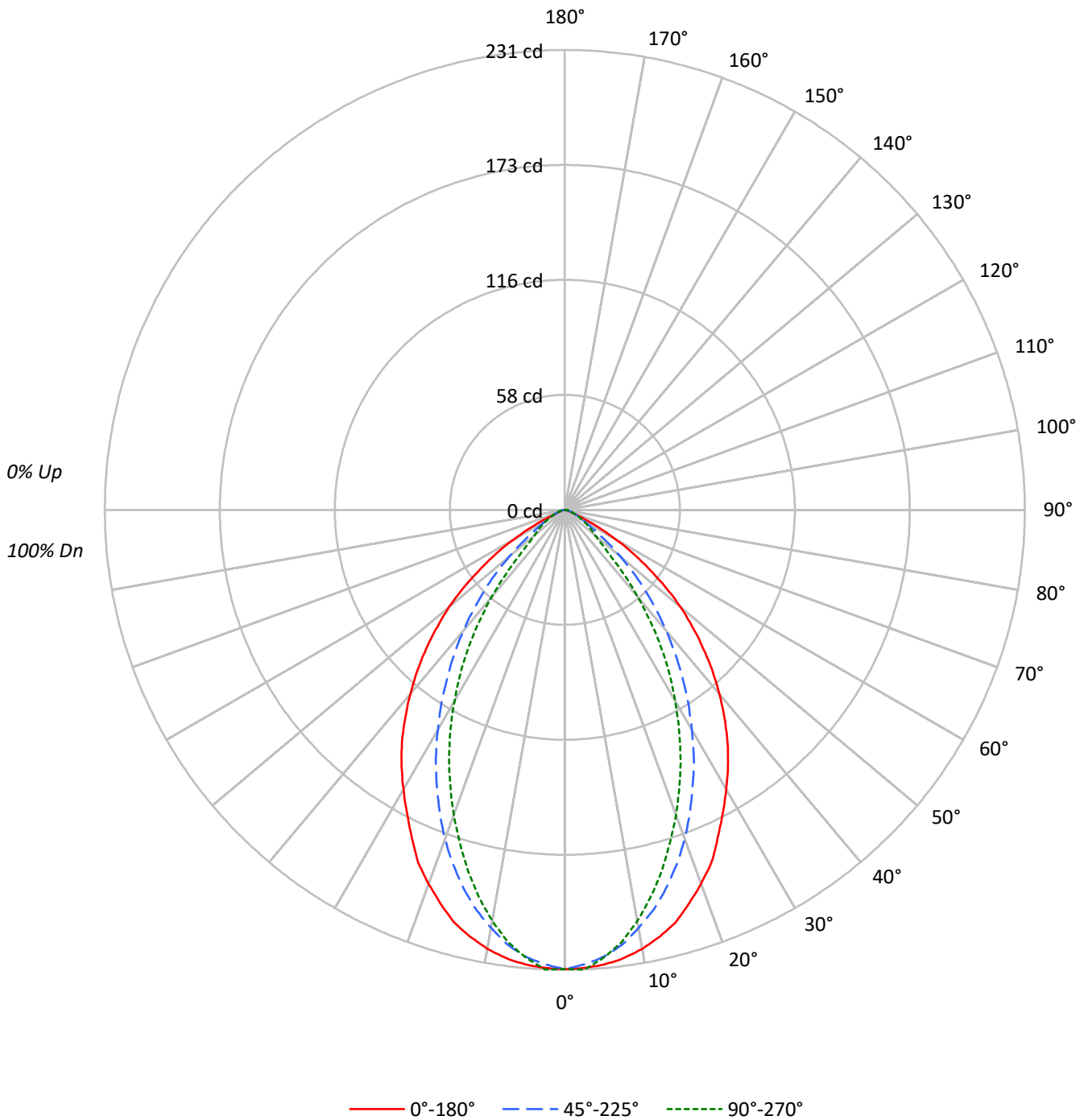
Lumens per Lamp: N/A
Luminaire Lumens: 297.8 lumens
Efficiency: N/A
Efficacy: 25.5 lumens/watt
Spacing Criteria (0/90/45): 1.07 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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°	2709	2709	2709
5°	2702	2656	2660
10°	2670	2542	2499
15°	2609	2391	2283
20°	2498	2199	2039
25°	2354	1971	1781
30°	2198	1729	1501
35°	2043	1474	1208
40°	1850	1216	875
45°	1631	943	528
50°	1383	659	358
55°	1052	395	299
60°	688	251	235
65°	289	189	189
70°	100	134	148
75°	82	95	113
80°	47	74	95
85°	54	54	94

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1631 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.3	7.2
10°-20°	55.7	18.7
20°-30°	71.5	24.0
30°-40°	67.1	22.5
40°-50°	46.8	15.7
50°-60°	24.2	8.1
60°-70°	8.3	2.8
70°-80°	2.4	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°	148.5	49.9
0°-40°	215.6	72.4
0°-60°	286.6	96.3
0°-90°	297.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	297.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	231	231	231	231	231	
5°	229	229	225	226	226	22
15°	215	209	197	190	188	60
25°	182	170	152	142	138	84
35°	142	125	103	90	84	89
45°	98	80	57	39	32	76
55°	51	39	19	15	15	46
65°	10	9	7	6	7	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°	230.7	230.7	230.7	230.7	230.7
2.5°	230.3	230.7	228.5	230.7	231.0
5°	229.2	228.9	225.3	226.4	225.7
7.5°	227.1	226.0	220.3	218.9	218.9
10°	223.9	221.7	213.2	210.7	209.6
12.5°	219.6	216.7	205.7	201.0	199.2
15°	214.6	209.2	196.7	190.3	187.8
17.5°	207.4	200.3	186.7	179.2	175.3
20°	199.9	191.0	176.0	167.1	163.2
22.5°	192.1	181.4	164.2	154.6	150.3
25°	181.7	170.3	152.1	141.7	137.5
27.5°	171.7	159.6	140.3	128.5	124.3
30°	162.1	147.8	127.5	116.0	110.7
32.5°	152.5	136.4	115.3	102.8	97.8
35°	142.5	125.0	102.8	89.6	84.3
37.5°	131.7	113.9	91.0	76.8	70.3
40°	120.7	102.1	79.3	63.2	57.1
42.5°	109.6	91.4	67.5	51.1	43.9
45°	98.2	80.3	56.8	39.3	31.8
47.5°	86.8	69.3	46.4	28.6	23.9
50°	75.7	58.9	36.1	21.1	19.6
52.5°	63.6	48.9	27.1	17.5	17.1
55°	51.4	38.6	19.3	15.0	14.6
57.5°	40.7	30.0	13.9	12.5	12.1
60°	29.3	21.4	10.7	10.4	10.0
62.5°	19.3	14.6	8.6	8.2	8.2
65°	10.4	8.9	6.8	6.4	6.8
67.5°	4.3	5.0	5.0	5.4	5.4
70°	2.9	3.2	3.9	4.3	4.3
72.5°	2.1	2.5	2.9	3.2	3.2
75°	1.8	1.8	2.1	2.5	2.5
77.5°	1.1	1.4	1.4	1.8	2.1
80°	0.7	1.1	1.1	1.4	1.4
82.5°	0.4	0.7	0.7	1.1	1.1
85°	0.4	0.4	0.4	0.4	0.7
87.5°	0.0	0.0	0.0	0.0	0.4
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	9.80	11.05	10.16	11.37	11.68	3.30	4.56	3.66	4.87	5.19
	3H	9.75	10.86	10.13	11.19	11.55	4.08	5.19	4.46	5.52	5.89
	4H	9.70	10.73	10.10	11.08	11.46	4.29	5.32	4.69	5.67	6.05
	6H	9.63	10.57	10.04	10.94	11.34	4.42	5.36	4.84	5.74	6.13
	8H	9.58	10.47	10.01	10.87	11.27	4.46	5.35	4.89	5.74	6.15
	12H	9.54	10.39	9.97	10.78	11.21	4.48	5.33	4.91	5.71	6.14
4H	2H	9.64	10.67	10.05	11.02	11.41	3.56	4.59	3.96	4.94	5.32
	3H	9.63	10.46	10.04	10.87	11.27	4.47	5.31	4.89	5.71	6.12
	4H	9.58	10.32	10.01	10.74	11.18	4.75	5.49	5.18	5.91	6.35
	6H	9.52	10.16	9.98	10.60	11.07	4.95	5.59	5.42	6.04	6.51
	8H	9.47	10.06	9.94	10.51	10.98	5.02	5.61	5.49	6.06	6.53
	12H	9.42	9.95	9.91	10.43	10.91	5.06	5.58	5.55	6.07	6.54
8H	4H	9.46	10.06	9.93	10.51	10.98	4.73	5.32	5.20	5.77	6.24
	6H	9.40	9.88	9.90	10.38	10.87	4.99	5.47	5.49	5.97	6.45
	8H	9.35	9.79	9.87	10.30	10.80	5.10	5.54	5.63	6.05	6.55
	12H	9.31	9.70	9.83	10.20	10.77	5.18	5.56	5.70	6.06	6.63
12H	4H	9.42	9.94	9.90	10.42	10.90	4.69	5.21	5.18	5.70	6.17
	6H	9.34	9.78	9.87	10.30	10.79	4.95	5.39	5.47	5.90	6.40
	8H	9.31	9.70	9.83	10.19	10.77	5.09	5.48	5.61	5.98	6.55