

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: P1059631

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059631
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H340D935-X4F0-XX-UDD-WVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

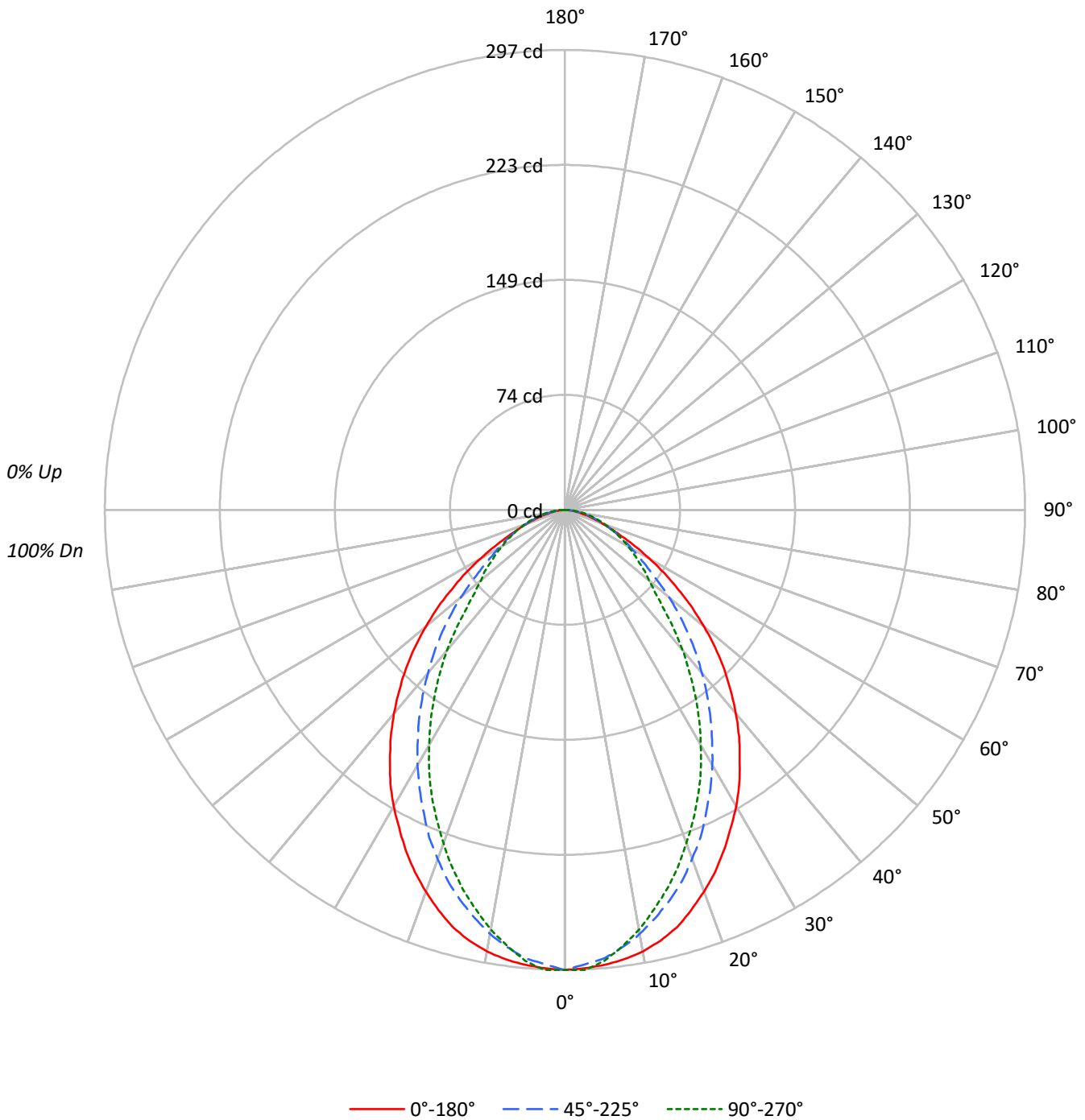
Lumens per Lamp: N/A
Luminaire Lumens: 519.5 lumens
Efficiency: N/A
Efficacy: 44.4 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66				
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52				
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42				
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35				
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3489	3489	3489
5°	3476	3425	3447
10°	3453	3316	3283
15°	3394	3173	3087
20°	3279	2998	2864
25°	3146	2795	2637
30°	2997	2580	2377
35°	2820	2349	2103
40°	2632	2108	1812
45°	2413	1862	1488
50°	2139	1598	1292
55°	1820	1337	1183
60°	1484	1165	1099
65°	1131	1031	1022
70°	882	920	954
75°	712	826	889
80°	534	676	818
85°	283	431	728

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2413 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.6	5.3
10°-20°	74.2	14.3
20°-30°	100.9	19.4
30°-40°	104.5	20.1
40°-50°	88.2	17.0
50°-60°	62.6	12.0
60°-70°	38.3	7.4
70°-80°	19.0	3.7
80°-90°	4.3	0.8
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°	202.6	39.0
0°-40°	307.2	59.1
0°-60°	457.9	88.1
0°-90°	519.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	519.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	297	297	297	297	297	
5°	295	295	291	292	292	28
15°	279	274	261	256	254	78
25°	243	232	216	208	204	112
35°	197	182	164	152	147	123
45°	145	130	112	97	90	112
55°	89	80	65	60	58	80
65°	41	39	37	37	37	42
75°	16	17	18	19	20	17
85°	2	2	3	5	5	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	297.1	297.1	297.1	297.1	297.1
2.5°	296.3	296.7	293.8	297.1	297.4
5°	294.9	294.9	290.6	292.4	292.4
7.5°	292.8	292.1	284.9	284.9	284.2
10°	289.6	287.4	278.1	276.3	275.3
12.5°	284.9	281.3	269.9	266.7	264.6
15°	279.2	273.8	261.0	256.4	253.9
17.5°	271.0	265.6	251.4	244.9	242.1
20°	262.4	254.6	239.9	233.5	229.2
22.5°	253.1	243.1	228.9	221.0	216.4
25°	242.8	232.1	215.7	207.8	203.5
27.5°	231.7	219.9	203.2	194.2	189.9
30°	221.0	207.4	190.3	180.3	175.3
32.5°	209.6	194.2	176.7	166.4	161.4
35°	196.7	181.7	163.9	152.5	146.7
37.5°	184.6	169.2	150.7	138.5	132.1
40°	171.7	156.4	137.5	125.0	118.2
42.5°	158.2	143.5	125.0	110.3	103.9
45°	145.3	130.0	112.1	96.8	89.6
47.5°	131.4	117.1	99.6	83.9	78.9
50°	117.1	103.9	87.5	73.2	70.7
52.5°	103.2	92.1	75.3	66.1	65.0
55°	88.9	79.6	65.3	59.6	57.8
57.5°	75.7	68.9	56.1	53.2	52.5
60°	63.2	57.5	49.6	47.8	46.8
62.5°	51.1	47.8	43.2	42.5	41.8
65°	40.7	39.3	37.1	37.1	36.8
67.5°	32.1	32.1	31.8	32.5	32.1
70°	25.7	26.1	26.8	27.5	27.8
72.5°	20.4	21.4	22.1	23.2	23.6
75°	15.7	16.8	18.2	18.9	19.6
77.5°	11.4	12.5	13.9	15.0	15.7
80°	7.9	8.6	10.0	11.4	12.1
82.5°	5.0	5.4	6.4	7.9	8.6
85°	2.1	2.5	3.2	4.6	5.4
87.5°	0.0	0.0	0.4	1.4	2.5
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	13.15	14.60	13.51	14.91	15.23	11.25	12.70	11.61	13.01	13.32
	3H	14.05	15.34	14.42	15.67	16.03	12.82	14.11	13.20	14.44	14.81
	4H	14.33	15.54	14.73	15.89	16.27	13.41	14.63	13.81	14.98	15.36
	6H	14.48	15.60	14.89	15.96	16.36	13.86	14.98	14.28	15.35	15.74
	8H	14.50	15.56	14.93	15.95	16.36	14.01	15.08	14.44	15.47	15.87
	12H	14.50	15.51	14.93	15.89	16.32	14.11	15.13	14.54	15.51	15.94
4H	2H	13.39	14.60	13.79	14.95	15.33	11.79	13.00	12.19	13.35	13.73
	3H	14.51	15.51	14.92	15.91	16.31	13.56	14.56	13.97	14.96	15.36
	4H	14.90	15.80	15.33	16.21	16.65	14.27	15.17	14.70	15.59	16.03
	6H	15.14	15.92	15.60	16.36	16.82	14.84	15.62	15.30	16.06	16.53
	8H	15.18	15.91	15.65	16.36	16.82	15.03	15.76	15.50	16.21	16.68
	12H	15.19	15.84	15.67	16.32	16.79	15.17	15.82	15.66	16.30	16.77
8H	4H	15.05	15.78	15.52	16.23	16.70	14.48	15.21	14.95	15.65	16.12
	6H	15.37	15.97	15.87	16.46	16.94	15.16	15.75	15.65	16.25	16.73
	8H	15.45	15.98	15.96	16.49	16.98	15.41	15.95	15.93	16.46	16.95
	12H	15.48	15.95	15.99	16.45	17.01	15.62	16.10	16.14	16.59	17.16
12H	4H	15.06	15.71	15.54	16.19	16.66	14.48	15.13	14.96	15.61	16.08
	6H	15.38	15.92	15.90	16.43	16.92	15.16	15.70	15.68	16.21	16.70
	8H	15.50	15.97	16.01	16.47	17.03	15.47	15.94	15.98	16.44	17.00