

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: P1058422

Luminaire Tested: S122RDR-H485D940-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058422
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H485D940-X4F0-XX-UDD-SVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

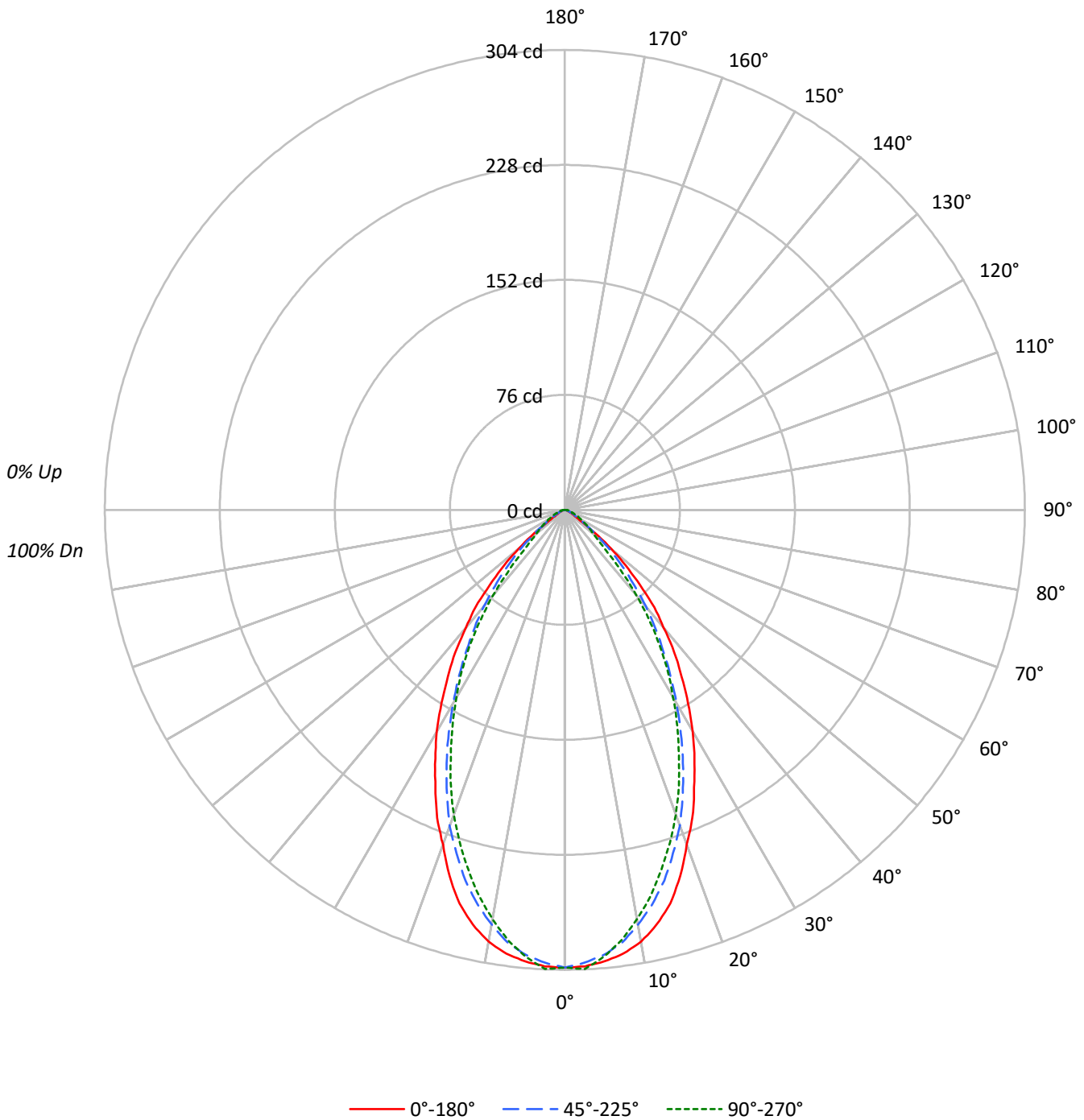
Lumens per Lamp: N/A
Luminaire Lumens: 325.4 lumens
Efficiency: N/A
Efficacy: 18.7 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	81	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	44

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5584	5584	5584
5°	5549	5470	5492
10°	5432	5216	5149
15°	5146	4847	4707
20°	4624	4365	4210
25°	4119	3763	3628
30°	3603	3141	3049
35°	3034	2543	2462
40°	2445	2007	1775
45°	1829	1451	1057
50°	1145	936	695
55°	389	505	563
60°	221	314	447
65°	157	210	345
70°	129	162	259
75°	86	128	214
80°	64	128	191
85°	0	0	127

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1829 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.9	8.6
10°-20°	71.4	21.9
20°-30°	86.0	26.4
30°-40°	73.4	22.6
40°-50°	43.0	13.2
50°-60°	15.6	4.8
60°-70°	5.5	1.7
70°-80°	2.2	0.7
80°-90°	0.4	0.1
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°	185.2	56.9
0°-40°	258.7	79.5
0°-60°	317.3	97.5
0°-90°	325.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	325.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	303	303	303	303	303	
5°	300	300	295	296	296	28
15°	269	265	254	249	246	75
25°	202	194	185	182	178	93
35°	135	124	113	112	109	84
45°	70	63	56	46	40	54
55°	12	17	16	16	18	15
65°	4	4	5	7	8	4
75°	1	2	2	2	3	2
85°	0	0	0	1	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	302.6	302.6	302.6	302.6	302.6
2.5°	302.0	302.6	299.6	302.6	303.8
5°	299.6	300.2	295.3	296.5	296.5
7.5°	295.9	295.3	288.7	287.5	286.9
10°	289.9	288.1	278.4	276.6	274.8
12.5°	280.8	277.2	267.0	263.9	261.5
15°	269.4	265.1	253.7	248.8	246.4
17.5°	253.7	248.8	238.0	233.1	230.7
20°	235.5	230.7	222.3	216.8	214.4
22.5°	220.4	212.6	203.5	199.9	196.9
25°	202.3	193.9	184.8	181.8	178.2
27.5°	185.4	175.1	166.1	163.7	160.7
30°	169.1	158.2	147.4	147.4	143.1
32.5°	151.6	141.3	129.9	129.2	126.8
35°	134.7	124.4	112.9	111.7	109.3
37.5°	119.0	108.7	97.8	94.2	91.2
40°	101.5	92.4	83.3	77.3	73.7
42.5°	87.6	77.3	68.2	61.0	56.2
45°	70.1	62.8	55.6	46.5	40.5
47.5°	54.4	49.5	43.5	33.2	30.2
50°	39.9	37.4	32.6	24.8	24.2
52.5°	25.4	26.6	23.6	19.3	21.1
55°	12.1	16.9	15.7	16.3	17.5
57.5°	7.9	8.5	11.5	13.3	14.5
60°	6.0	6.0	8.5	10.9	12.1
62.5°	4.8	4.8	6.6	9.1	9.7
65°	3.6	4.2	4.8	6.6	7.9
67.5°	3.0	3.0	3.6	5.4	6.0
70°	2.4	2.4	3.0	4.2	4.8
72.5°	1.8	1.8	2.4	3.6	3.6
75°	1.2	1.8	1.8	2.4	3.0
77.5°	1.2	1.2	1.2	1.8	2.4
80°	0.6	0.6	1.2	1.2	1.8
82.5°	0.6	0.6	0.6	0.6	1.2
85°	0.0	0.0	0.0	0.6	0.6
87.5°	0.0	0.0	0.0	0.0	0.0
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	1.89	3.05	2.26	3.37	3.68	5.26	6.43	5.63	6.74	7.05
	3H	2.40	3.42	2.78	3.75	4.12	5.98	7.00	6.36	7.33	7.70
	4H	2.53	3.48	2.93	3.83	4.21	6.19	7.14	6.60	7.49	7.88
	6H	2.60	3.47	3.02	3.84	4.23	6.34	7.21	6.76	7.58	7.98
	8H	2.60	3.42	3.04	3.81	4.22	6.37	7.19	6.80	7.58	7.99
	12H	2.57	3.35	3.00	3.73	4.16	6.37	7.15	6.80	7.53	7.97
4H	2H	2.19	3.14	2.59	3.49	3.88	5.23	6.17	5.63	6.53	6.91
	3H	2.83	3.60	3.25	4.01	4.41	6.09	6.86	6.50	7.26	7.67
	4H	3.07	3.75	3.51	4.18	4.62	6.37	7.05	6.80	7.47	7.92
	6H	3.19	3.77	3.65	4.22	4.69	6.59	7.17	7.05	7.62	8.09
	8H	3.20	3.75	3.67	4.20	4.67	6.63	7.18	7.10	7.63	8.10
	12H	3.17	3.64	3.66	4.13	4.61	6.65	7.13	7.14	7.62	8.09
8H	4H	3.17	3.72	3.65	4.17	4.64	6.29	6.84	6.77	7.29	7.76
	6H	3.34	3.78	3.84	4.28	4.76	6.55	6.99	7.06	7.49	7.98
	8H	3.38	3.78	3.91	4.29	4.79	6.61	7.01	7.14	7.53	8.02
	12H	3.36	3.70	3.88	4.20	4.78	6.67	7.02	7.19	7.52	8.09
12H	4H	3.16	3.64	3.65	4.12	4.60	6.25	6.72	6.74	7.21	7.69
	6H	3.33	3.73	3.86	4.25	4.74	6.50	6.90	7.03	7.42	7.91
	8H	3.41	3.75	3.92	4.25	4.83	6.59	6.93	7.10	7.43	8.01