

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: P1058215

Luminaire Tested: S122RDR-H1005D840-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058215
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-H1005D840-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, 80 CRI LEDS
Ballast/Driver: -

Summary

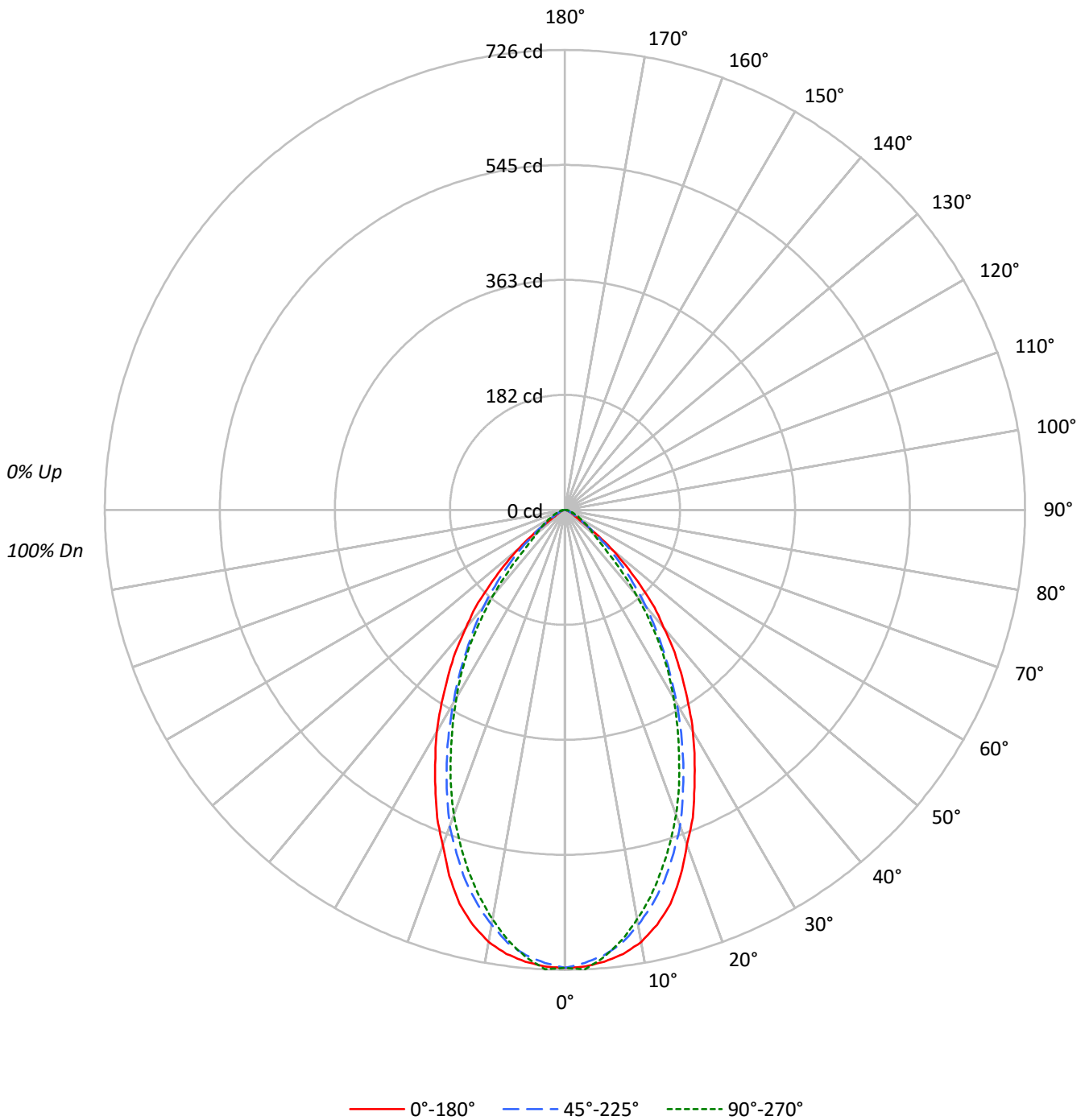
Lumens per Lamp: N/A
Luminaire Lumens: 777.6 lumens
Efficiency: N/A
Efficacy: 21.3 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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	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	80	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°	13341	13341	13341
5°	13259	13072	13125
10°	12979	12466	12303
15°	12295	11579	11248
20°	11052	10429	10060
25°	9844	8991	8667
30°	8610	7502	7287
35°	7249	6080	5884
40°	5839	4798	4242
45°	4368	3466	2523
50°	2733	2236	1656
55°	930	1206	1348
60°	531	745	1067
65°	380	502	821
70°	313	388	620
75°	207	307	513
80°	149	308	457
85°	0	0	296

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4368 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.6	8.6
10°-20°	170.6	21.9
20°-30°	205.4	26.4
30°-40°	175.5	22.6
40°-50°	102.8	13.2
50°-60°	37.2	4.8
60°-70°	13.2	1.7
70°-80°	5.3	0.7
80°-90°	0.9	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°	442.6	56.9
0°-40°	618.1	79.5
0°-60°	758.2	97.5
0°-90°	777.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	777.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	723	723	723	723	723	
5°	716	717	706	709	709	68
15°	644	634	606	595	589	179
25°	484	463	442	434	426	222
35°	322	297	270	267	261	201
45°	167	150	133	111	97	129
55°	29	40	38	39	42	36
65°	9	10	12	16	19	9
75°	3	4	4	6	7	4
85°	0	0	0	1	1	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	723.0	723.0	723.0	723.0	723.0
2.5°	721.6	723.0	715.8	723.0	725.9
5°	715.8	717.2	705.7	708.6	708.6
7.5°	707.1	705.7	689.8	686.9	685.5
10°	692.7	688.4	665.3	661.0	656.6
12.5°	671.1	662.4	637.9	630.7	624.9
15°	643.6	633.5	606.1	594.6	588.8
17.5°	606.1	594.6	568.6	557.1	551.3
20°	562.8	551.3	531.1	518.1	512.3
22.5°	526.7	508.0	486.3	477.7	470.5
25°	483.5	463.3	441.6	434.4	425.7
27.5°	443.0	418.5	396.9	391.1	383.9
30°	404.1	378.1	352.1	352.1	342.0
32.5°	362.2	337.7	310.3	308.8	303.1
35°	321.8	297.3	269.9	267.0	261.2
37.5°	284.3	259.8	233.8	225.1	217.9
40°	242.4	220.8	199.2	184.7	176.1
42.5°	209.3	184.7	163.1	145.8	134.2
45°	167.4	150.1	132.8	111.1	96.7
47.5°	129.9	118.3	103.9	79.4	72.2
50°	95.2	89.5	77.9	59.2	57.7
52.5°	60.6	63.5	56.3	46.2	50.5
55°	28.9	40.4	37.5	39.0	41.9
57.5°	18.8	20.2	27.4	31.7	34.6
60°	14.4	14.4	20.2	26.0	28.9
62.5°	11.5	11.5	15.9	21.6	23.1
65°	8.7	10.1	11.5	15.9	18.8
67.5°	7.2	7.2	8.7	13.0	14.4
70°	5.8	5.8	7.2	10.1	11.5
72.5°	4.3	4.3	5.8	8.7	8.7
75°	2.9	4.3	4.3	5.8	7.2
77.5°	2.9	2.9	2.9	4.3	5.8
80°	1.4	1.4	2.9	2.9	4.3
82.5°	1.4	1.4	1.4	1.4	2.9
85°	0.0	0.0	0.0	1.4	1.4
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	4.89	6.05	5.25	6.36	6.68	8.27	9.44	8.64	9.75	10.06
	3H	5.41	6.43	5.79	6.76	7.13	9.00	10.02	9.38	10.36	10.72
	4H	5.54	6.49	5.94	6.84	7.23	9.22	10.17	9.63	10.52	10.91
	6H	5.61	6.48	6.03	6.85	7.25	9.37	10.24	9.79	10.61	11.01
	8H	5.61	6.43	6.05	6.82	7.23	9.40	10.22	9.84	10.61	11.02
	12H	5.58	6.36	6.01	6.74	7.17	9.40	10.18	9.84	10.57	11.00
4H	2H	5.19	6.14	5.60	6.49	6.88	8.24	9.19	8.64	9.54	9.93
	3H	5.85	6.62	6.27	7.03	7.43	9.12	9.88	9.53	10.29	10.69
	4H	6.09	6.77	6.53	7.19	7.64	9.40	10.08	9.84	10.50	10.95
	6H	6.21	6.79	6.67	7.24	7.71	9.62	10.21	10.09	10.66	11.13
	8H	6.22	6.76	6.69	7.21	7.69	9.67	10.21	10.14	10.66	11.14
	12H	6.18	6.66	6.67	7.15	7.62	9.69	10.16	10.18	10.65	11.13
8H	4H	6.20	6.74	6.67	7.19	7.67	9.33	9.88	9.80	10.32	10.80
	6H	6.36	6.80	6.87	7.30	7.79	9.59	10.03	10.10	10.53	11.01
	8H	6.40	6.79	6.93	7.31	7.81	9.65	10.05	10.18	10.56	11.06
	12H	6.37	6.72	6.89	7.22	7.80	9.71	10.05	10.22	10.55	11.13
12H	4H	6.18	6.66	6.67	7.15	7.62	9.28	9.76	9.77	10.25	10.72
	6H	6.36	6.75	6.89	7.27	7.77	9.54	9.93	10.07	10.45	10.95
	8H	6.42	6.77	6.94	7.27	7.84	9.62	9.97	10.14	10.47	11.04