

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: P1058528

Luminaire Tested: S122RDR-H865D835-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058528
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H865D835-X4F0-XX-UDD-BVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

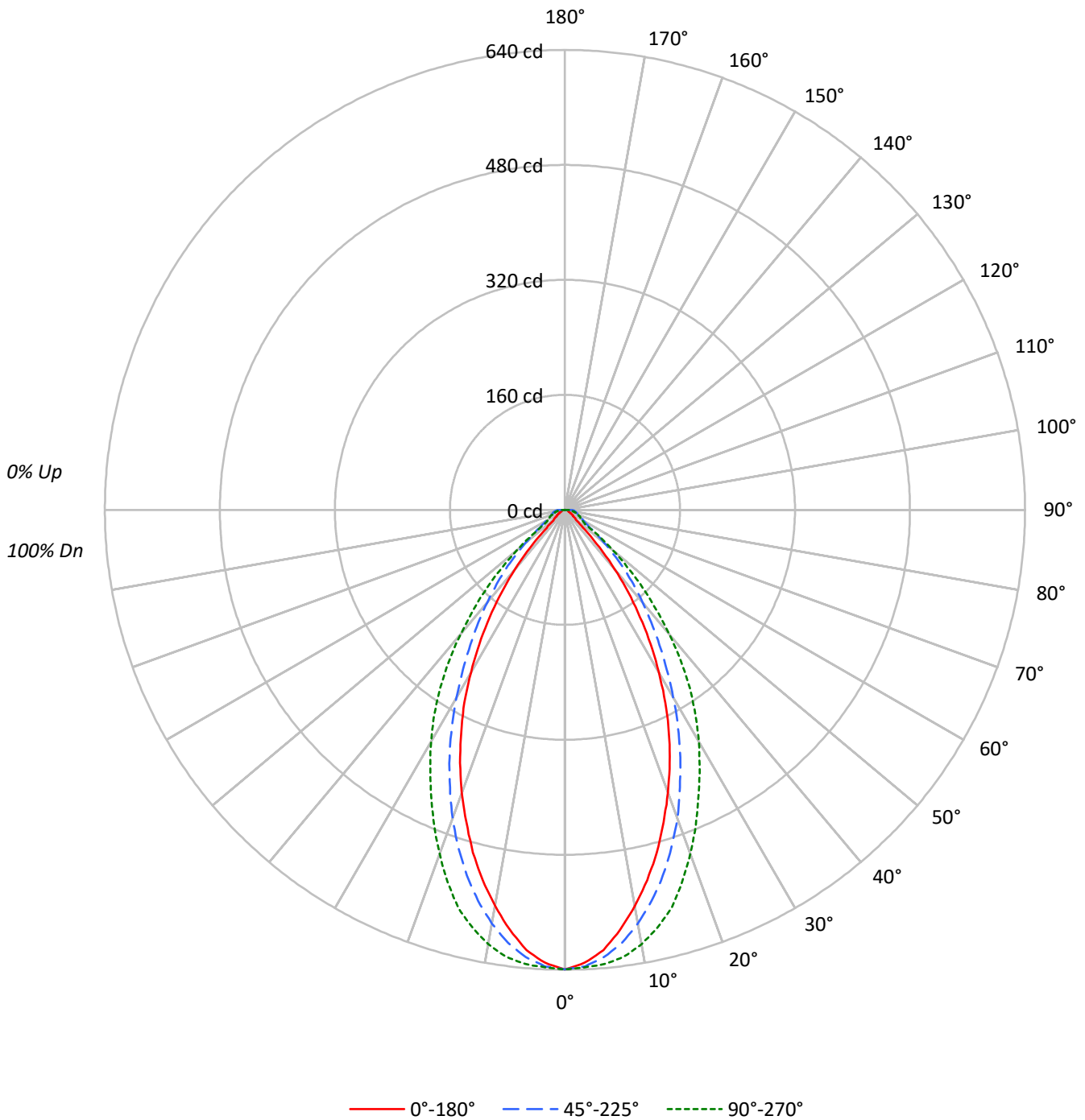
Lumens per Lamp: N/A
Luminaire Lumens: 689.4 lumens
Efficiency: N/A
Efficacy: 22.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90				
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81				
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74				
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67				
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61				
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57				
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52				
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48				
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45				
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11800	11800	11800
5°	11392	11573	11755
10°	10491	10950	11501
15°	9431	10064	10954
20°	8228	8974	10007
25°	6959	7733	8954
30°	5559	6422	7935
35°	4111	5161	6816
40°	2597	4042	5429
45°	1023	3038	3995
50°	528	2041	2463
55°	434	1342	1103
60°	317	1085	996
65°	266	1017	1017
70°	264	1057	993
75°	349	1226	1048
80°	521	1562	1169
85°	783	2604	1567

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 5203 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.5	8.5
10°-20°	147.7	21.4
20°-30°	175.6	25.5
30°-40°	146.0	21.2
40°-50°	81.6	11.8
50°-60°	33.0	4.8
60°-70°	21.1	3.1
70°-80°	15.8	2.3
80°-90°	10.1	1.5
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°	381.8	55.4
0°-40°	527.9	76.6
0°-60°	642.4	93.2
0°-90°	689.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	689.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	640	640	640	640	640	
5°	615	626	625	630	635	57
15°	494	508	527	554	573	137
25°	342	355	380	409	440	156
35°	182	200	229	267	303	113
45°	39	66	116	136	153	37
55°	14	28	42	40	34	12
65°	6	24	23	22	23	6
75°	5	17	17	16	15	5
85°	4	11	12	11	7	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	639.5	639.5	639.5	639.5	639.5
2.5°	630.9	640.7	635.8	635.8	637.1
5°	615.0	626.0	624.8	629.7	634.6
7.5°	589.3	601.5	607.7	618.7	627.3
10°	559.9	573.4	584.4	601.5	613.8
12.5°	528.0	541.5	557.4	579.5	595.4
15°	493.7	508.4	526.8	553.8	573.4
17.5°	455.7	471.7	492.5	521.9	542.7
20°	419.0	434.9	457.0	486.4	509.6
22.5°	381.0	394.5	417.8	447.2	475.3
25°	341.8	355.3	379.8	409.2	439.8
27.5°	302.6	316.1	340.6	371.2	405.5
30°	260.9	275.7	301.4	335.7	372.4
32.5°	221.7	236.4	263.4	301.4	338.1
35°	182.5	199.7	229.1	267.1	302.6
37.5°	144.6	164.2	197.2	232.8	264.6
40°	107.8	128.6	167.8	198.5	225.4
42.5°	71.1	95.6	140.9	166.6	187.4
45°	39.2	66.2	116.4	136.0	153.1
47.5°	22.1	42.9	91.9	107.8	117.6
50°	18.4	31.9	71.1	82.1	85.8
52.5°	14.7	29.4	53.9	60.0	57.6
55°	13.5	28.2	41.7	40.4	34.3
57.5°	11.0	28.2	33.1	29.4	29.4
60°	8.6	27.0	29.4	25.7	27.0
62.5°	7.4	25.7	27.0	24.5	24.5
65°	6.1	24.5	23.3	22.1	23.3
67.5°	4.9	22.1	22.1	20.8	20.8
70°	4.9	20.8	19.6	18.4	18.4
72.5°	4.9	18.4	18.4	17.2	17.2
75°	4.9	17.2	17.2	15.9	14.7
77.5°	4.9	14.7	15.9	14.7	13.5
80°	4.9	13.5	14.7	13.5	11.0
82.5°	4.9	12.3	13.5	12.3	9.8
85°	3.7	11.0	12.3	11.0	7.4
87.5°	3.7	11.0	12.3	9.8	6.1
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	6.94	8.16	7.31	8.48	8.79	8.01	9.23	8.38	9.55	9.86
	3H	8.28	9.36	8.66	9.69	10.06	10.04	11.13	10.42	11.46	11.82
	4H	8.85	9.86	9.26	10.21	10.60	11.00	12.01	11.40	12.36	12.75
	6H	9.42	10.35	9.83	10.72	11.11	11.95	12.88	12.36	13.25	13.64
	8H	9.74	10.62	10.18	11.01	11.42	12.40	13.28	12.83	13.67	14.07
	12H	10.05	10.89	10.49	11.28	11.71	12.82	13.66	13.26	14.05	14.48
4H	2H	7.91	8.92	8.31	9.27	9.66	8.69	9.70	9.10	10.06	10.44
	3H	9.93	10.77	10.35	11.17	11.58	10.98	11.81	11.39	12.21	12.62
	4H	11.02	11.77	11.45	12.19	12.63	12.12	12.87	12.56	13.29	13.74
	6H	11.89	12.54	12.35	12.98	13.45	13.30	13.94	13.76	14.39	14.86
	8H	12.30	12.91	12.77	13.36	13.83	13.86	14.46	14.33	14.91	15.38
	12H	12.68	13.22	13.17	13.70	14.18	14.40	14.94	14.89	15.42	15.90
8H	4H	11.79	12.39	12.26	12.84	13.31	12.68	13.28	13.15	13.73	14.20
	6H	13.13	13.63	13.63	14.12	14.61	14.13	14.63	14.64	15.13	15.61
	8H	13.85	14.29	14.37	14.81	15.30	14.90	15.34	15.42	15.86	16.35
	12H	14.54	14.93	15.06	15.43	16.00	15.69	16.08	16.20	16.57	17.15
12H	4H	11.94	12.48	12.43	12.96	13.44	12.78	13.32	13.27	13.80	14.28
	6H	13.45	13.90	13.97	14.41	14.91	14.36	14.80	14.88	15.32	15.81
	8H	14.36	14.75	14.87	15.24	15.82	15.27	15.66	15.78	16.16	16.73