

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059104

Luminaire Tested: S123RDRP-S1165D840-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059104
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S1165D840-X4F0-XX-UDD-BVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

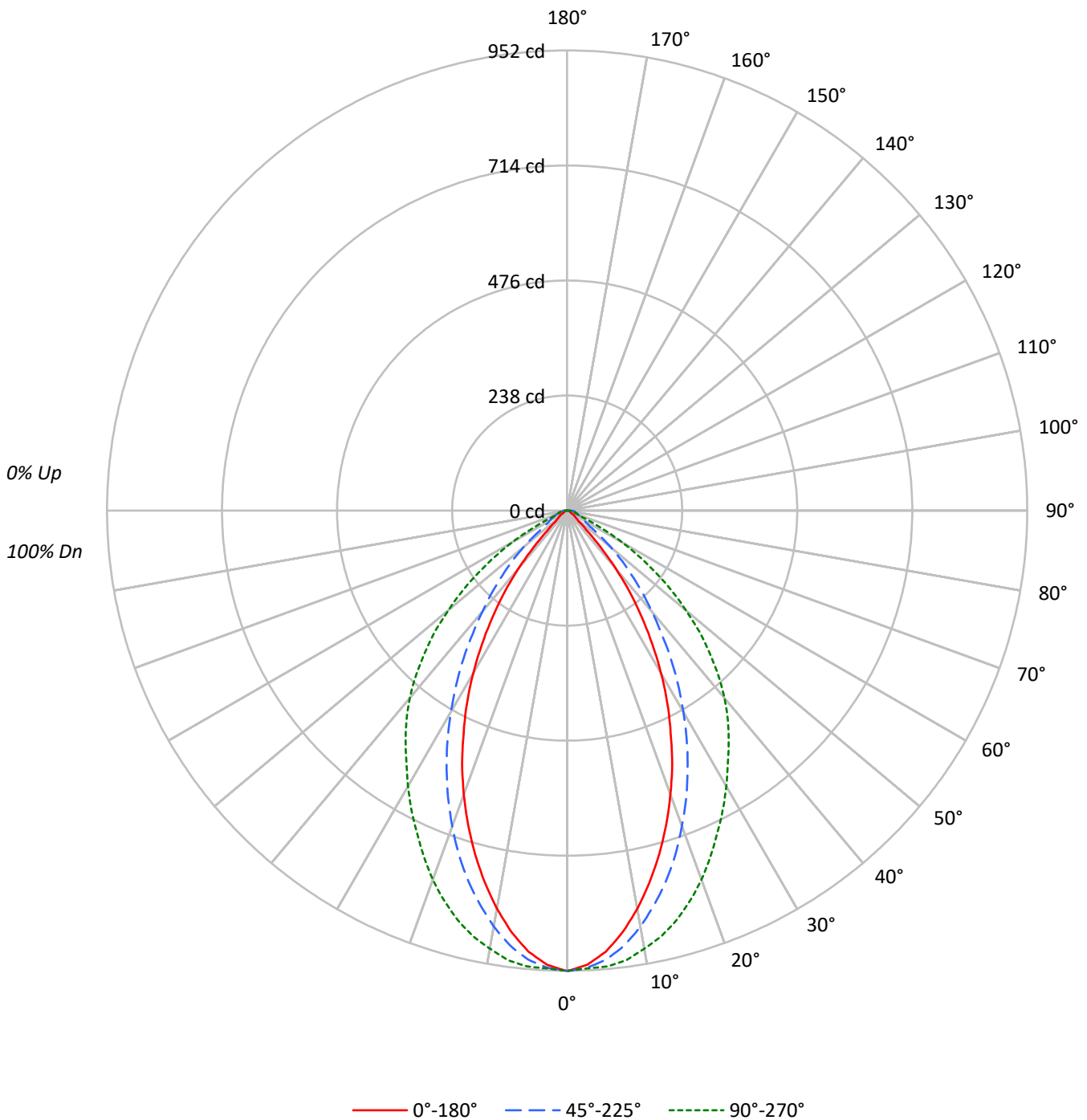
Lumens per Lamp: N/A
Luminaire Lumens: 1144.2 lumens
Efficiency: N/A
Efficacy: 27.4 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
Input Voltage (V): 120
Input Current (A_{in}): 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	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	98	98	96	95	95	93	92	90																												
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81																												
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73																												
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66																												
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60																												
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55																												
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50																												
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46																												
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43																												
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11185	11185	11185
5°	10798	10987	11159
10°	9968	10420	10976
15°	8941	9632	10659
20°	7808	8681	10156
25°	6566	7643	9529
30°	5273	6516	8926
35°	3862	5366	8351
40°	2388	4176	7769
45°	918	3144	6917
50°	453	2156	5853
55°	358	1194	4592
60°	240	991	3079
65°	203	889	1375
70°	199	800	800
75°	263	857	794
80°	392	1082	886
85°	593	1765	1172

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6917 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.3	7.6
10°-20°	223.6	19.5
20°-30°	277.5	24.3
30°-40°	248.6	21.7
40°-50°	163.4	14.3
50°-60°	81.9	7.2
60°-70°	32.3	2.8
70°-80°	18.1	1.6
80°-90°	11.4	1.0
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°	588.4	51.4
0°-40°	837.0	73.2
0°-60°	1082.4	94.6
0°-90°	1144.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1144.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	952	952	952	952	952	
5°	916	931	932	938	947	85
15°	736	759	792	846	877	205
25°	507	539	590	673	736	232
35°	269	306	374	489	583	167
45°	55	92	189	319	416	52
55°	18	20	58	157	224	16
65°	7	20	32	41	50	7
75°	6	19	19	18	18	6
85°	4	13	13	13	9	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	952.5	952.5	952.5	952.5	952.5
2.5°	940.9	954.0	946.7	946.7	948.1
5°	916.1	930.7	932.1	938.0	946.7
7.5°	879.7	898.6	907.4	924.8	938.0
10°	836.0	856.4	873.9	904.5	920.5
12.5°	787.9	808.3	834.5	876.8	901.5
15°	735.5	758.8	792.3	846.2	876.8
17.5°	681.6	704.9	745.7	806.9	846.2
20°	624.8	651.0	694.7	764.6	812.7
22.5°	568.0	597.1	643.8	719.5	774.8
25°	506.8	538.9	589.9	672.9	735.5
27.5°	448.6	482.1	536.0	626.3	697.6
30°	388.9	422.4	480.6	578.2	658.3
32.5°	327.7	365.6	426.7	533.1	619.0
35°	269.4	305.9	374.3	489.4	582.6
37.5°	212.6	249.1	320.4	447.1	546.2
40°	155.8	193.7	272.4	406.3	506.8
42.5°	102.0	141.3	230.1	365.6	463.2
45°	55.3	91.8	189.3	319.0	416.5
47.5°	30.6	49.5	152.9	275.3	371.4
50°	24.8	27.7	118.0	234.5	320.4
52.5°	20.4	23.3	84.5	195.2	273.8
55°	17.5	20.4	58.3	157.3	224.3
57.5°	14.6	17.5	46.6	120.9	176.2
60°	10.2	17.5	42.2	88.8	131.1
62.5°	8.7	17.5	36.4	61.2	87.4
65°	7.3	20.4	32.0	40.8	49.5
67.5°	5.8	20.4	27.7	26.2	26.2
70°	5.8	20.4	23.3	21.8	23.3
72.5°	5.8	21.8	21.8	20.4	20.4
75°	5.8	18.9	18.9	17.5	17.5
77.5°	5.8	17.5	17.5	16.0	16.0
80°	5.8	16.0	16.0	14.6	13.1
82.5°	5.8	14.6	14.6	13.1	11.7
85°	4.4	13.1	13.1	13.1	8.7
87.5°	4.4	11.7	13.1	11.7	7.3
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	0.86	2.11	1.22	2.43	2.74	14.94	16.19	15.30	16.51	16.82
	3H	3.37	4.49	3.75	4.82	5.18	15.01	16.13	15.39	16.46	16.82
	4H	4.53	5.57	4.94	5.92	6.30	15.08	16.11	15.48	16.46	16.85
	6H	5.58	6.53	6.00	6.90	7.30	15.18	16.13	15.59	16.50	16.89
	8H	6.12	7.02	6.55	7.41	7.82	15.24	16.14	15.67	16.53	16.93
	12H	6.60	7.46	7.04	7.85	8.28	15.31	16.17	15.74	16.55	16.98
4H	2H	4.11	5.14	4.51	5.49	5.88	14.80	15.83	15.20	16.18	16.57
	3H	6.57	7.41	6.98	7.82	8.22	14.97	15.82	15.38	16.22	16.62
	4H	7.91	8.67	8.34	9.09	9.53	15.10	15.85	15.53	16.27	16.72
	6H	9.04	9.69	9.51	10.14	10.61	15.31	15.97	15.78	16.41	16.88
	8H	9.55	10.16	10.02	10.61	11.08	15.44	16.05	15.91	16.50	16.97
	12H	10.01	10.55	10.50	11.03	11.51	15.60	16.14	16.08	16.62	17.10
8H	4H	8.83	9.44	9.30	9.89	10.36	15.10	15.71	15.57	16.16	16.63
	6H	10.43	10.93	10.93	11.42	11.91	15.43	15.93	15.93	16.43	16.91
	8H	11.26	11.71	11.78	12.22	12.72	15.66	16.11	16.18	16.63	17.12
	12H	12.04	12.44	12.55	12.93	13.50	15.98	16.38	16.50	16.88	17.45
12H	4H	9.00	9.53	9.48	10.02	10.49	15.09	15.63	15.58	16.11	16.59
	6H	10.74	11.19	11.27	11.71	12.20	15.46	15.91	15.98	16.43	16.92
	8H	11.76	12.15	12.27	12.65	13.22	15.77	16.17	16.29	16.67	17.24