

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: P1059164

Luminaire Tested: S123RDRP-S1165D950-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059164
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S1165D950-X4F0-XX-UDD-WVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

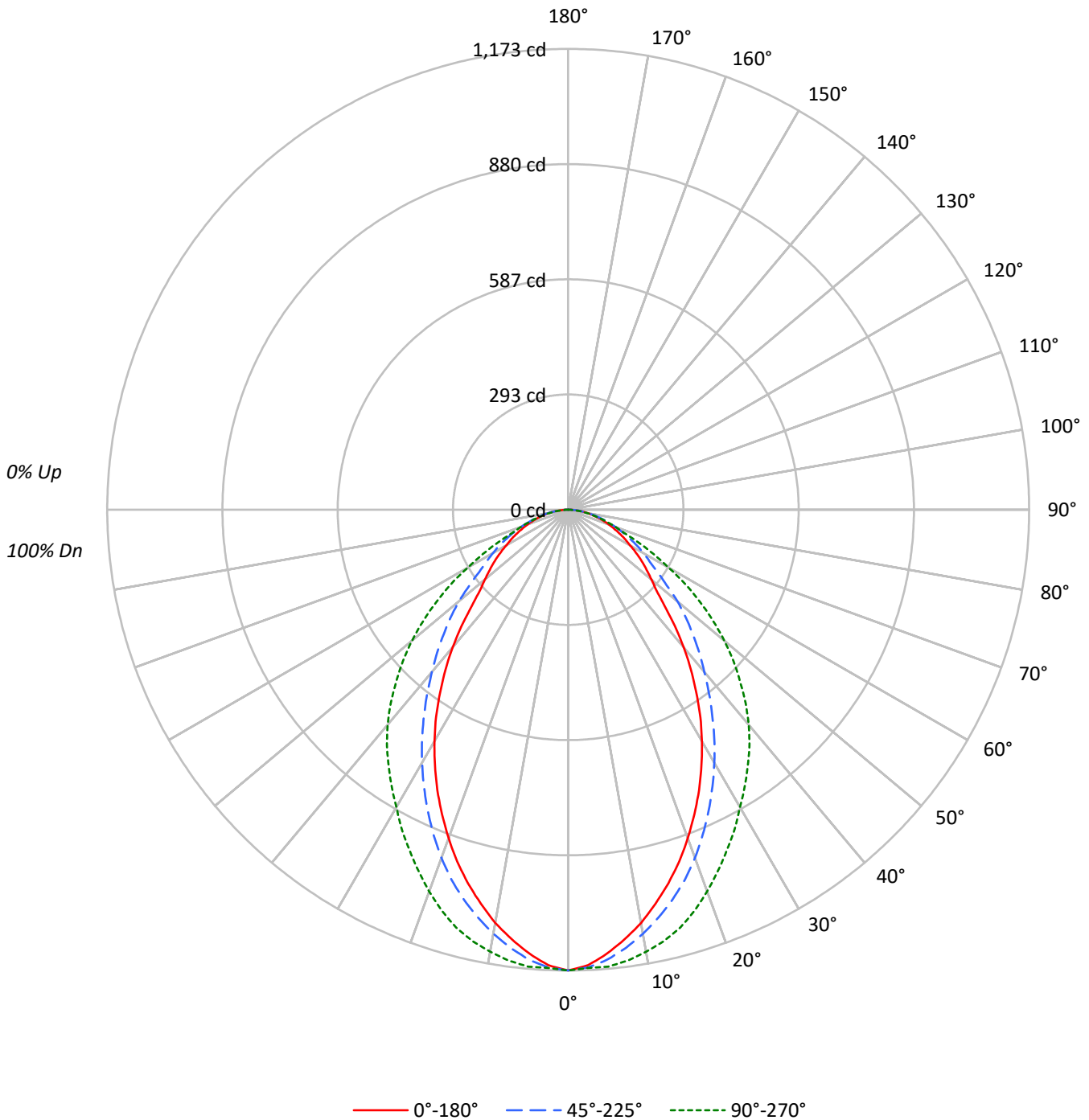
Lumens per Lamp: N/A
Luminaire Lumens: 2118.5 lumens
Efficiency: N/A
Efficacy: 50.7 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
Input Voltage (V): 120
Input Current (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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89					87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77					75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67					65				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59					57				
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53					51				
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47					45				
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43					41				
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39					37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35					34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33					31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13772	13772	13772
5°	13370	13549	13759
10°	12738	13066	13624
15°	11968	12486	13388
20°	11116	11786	12921
25°	10207	10956	12381
30°	9228	10087	11857
35°	8141	9166	11412
40°	6998	8262	10960
45°	5754	7443	10274
50°	5049	6631	9470
55°	4672	5659	8388
60°	4295	5200	6942
65°	4012	4776	5463
70°	3777	4343	4343
75°	3557	3992	3743
80°	3347	3625	3158
85°	3153	3516	2412

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10274 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.5	5.1
10°-20°	290.7	13.7
20°-30°	394.2	18.6
30°-40°	412.1	19.5
40°-50°	357.4	16.9
50°-60°	265.9	12.6
60°-70°	170.6	8.1
70°-80°	91.5	4.3
80°-90°	27.6	1.3
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°	793.4	37.4
0°-40°	1205.5	56.9
0°-60°	1828.8	86.3
0°-90°	2118.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2118.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1173	1173	1173	1173	1173	
5°	1134	1154	1150	1158	1167	106
15°	984	1008	1027	1068	1101	276
25°	788	813	846	902	956	361
35°	568	595	639	720	796	355
45°	346	373	448	544	619	273
55°	228	234	276	355	410	204
65°	144	157	172	183	197	144
75°	78	91	88	84	82	83
85°	23	29	26	22	18	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1172.8	1172.8	1172.8	1172.8	1172.8
2.5°	1160.5	1177.0	1166.0	1166.0	1167.3
5°	1134.3	1153.6	1149.5	1157.7	1167.3
7.5°	1102.7	1123.3	1124.7	1144.0	1157.7
10°	1068.3	1089.0	1095.8	1123.3	1142.6
12.5°	1027.1	1050.5	1062.8	1097.2	1124.7
15°	984.5	1007.8	1027.1	1068.3	1101.3
17.5°	939.1	962.5	987.2	1034.0	1069.7
20°	889.6	914.3	943.2	990.0	1034.0
22.5°	838.7	864.8	895.1	946.0	995.5
25°	787.8	812.6	845.6	902.0	955.6
27.5°	734.2	760.4	794.7	856.6	917.1
30°	680.6	706.7	743.9	809.8	874.5
32.5°	625.6	651.7	691.6	765.9	836.0
35°	567.9	595.4	639.4	720.5	796.1
37.5°	512.9	539.0	588.5	677.9	757.6
40°	456.5	484.0	539.0	635.2	715.0
42.5°	401.5	429.0	493.6	589.9	668.2
45°	346.5	372.6	448.2	544.5	618.7
47.5°	303.9	323.1	405.6	496.4	570.6
50°	276.4	283.2	363.0	449.6	518.4
52.5°	251.6	257.1	316.2	402.9	464.7
55°	228.2	233.7	276.4	354.7	409.7
57.5°	204.9	211.7	246.1	305.2	354.7
60°	182.9	191.1	221.4	261.2	295.6
62.5°	163.6	173.2	196.6	221.4	244.7
65°	144.4	156.7	171.9	182.9	196.6
67.5°	126.5	140.2	148.5	151.2	152.6
70°	110.0	123.7	126.5	126.5	126.5
72.5°	93.5	108.6	105.9	104.5	103.1
75°	78.4	90.7	88.0	83.9	82.5
77.5°	63.2	74.2	70.1	67.4	63.2
80°	49.5	57.7	53.6	50.9	46.7
82.5°	37.1	42.6	38.5	35.7	31.6
85°	23.4	28.9	26.1	22.0	17.9
87.5°	12.4	16.5	13.7	12.4	6.9
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	15.90	17.38	16.26	17.69	18.01	18.65	20.14	19.02	20.45	20.76
	3H	17.61	18.94	17.99	19.26	19.63	19.67	21.00	20.05	21.33	21.69
	4H	18.27	19.51	18.67	19.86	20.24	20.04	21.28	20.44	21.63	22.01
	6H	18.77	19.92	19.18	20.28	20.68	20.29	21.44	20.71	21.81	22.20
	8H	18.95	20.04	19.37	20.43	20.83	20.36	21.46	20.79	21.85	22.25
	12H	19.07	20.12	19.50	20.50	20.93	20.40	21.45	20.83	21.83	22.26
4H	2H	16.67	17.92	17.07	18.27	18.65	18.92	20.17	19.32	20.52	20.90
	3H	18.60	19.63	19.01	20.03	20.43	20.18	21.21	20.59	21.61	22.01
	4H	19.41	20.34	19.84	20.75	21.19	20.67	21.60	21.10	22.01	22.45
	6H	20.05	20.86	20.51	21.30	21.76	21.05	21.85	21.50	22.30	22.76
	8H	20.28	21.03	20.74	21.48	21.94	21.16	21.91	21.62	22.36	22.83
	12H	20.45	21.12	20.93	21.60	22.07	21.23	21.90	21.71	22.38	22.85
8H	4H	19.73	20.48	20.19	20.93	21.40	20.86	21.61	21.32	22.06	22.53
	6H	20.52	21.14	21.02	21.64	22.11	21.35	21.97	21.84	22.46	22.94
	8H	20.85	21.41	21.36	21.92	22.41	21.52	22.08	22.04	22.59	23.08
	12H	21.13	21.62	21.64	22.11	22.68	21.65	22.15	22.16	22.64	23.21
12H	4H	19.75	20.43	20.24	20.91	21.38	20.87	21.55	21.36	22.03	22.50
	6H	20.57	21.14	21.09	21.65	22.13	21.38	21.94	21.90	22.45	22.94
	8H	20.97	21.46	21.48	21.96	22.52	21.61	22.11	22.12	22.60	23.17