

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: P1059157

Luminaire Tested: S123RDRP-S1165D950-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059157
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S1165D950-X4F0-XX-UDD-BVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

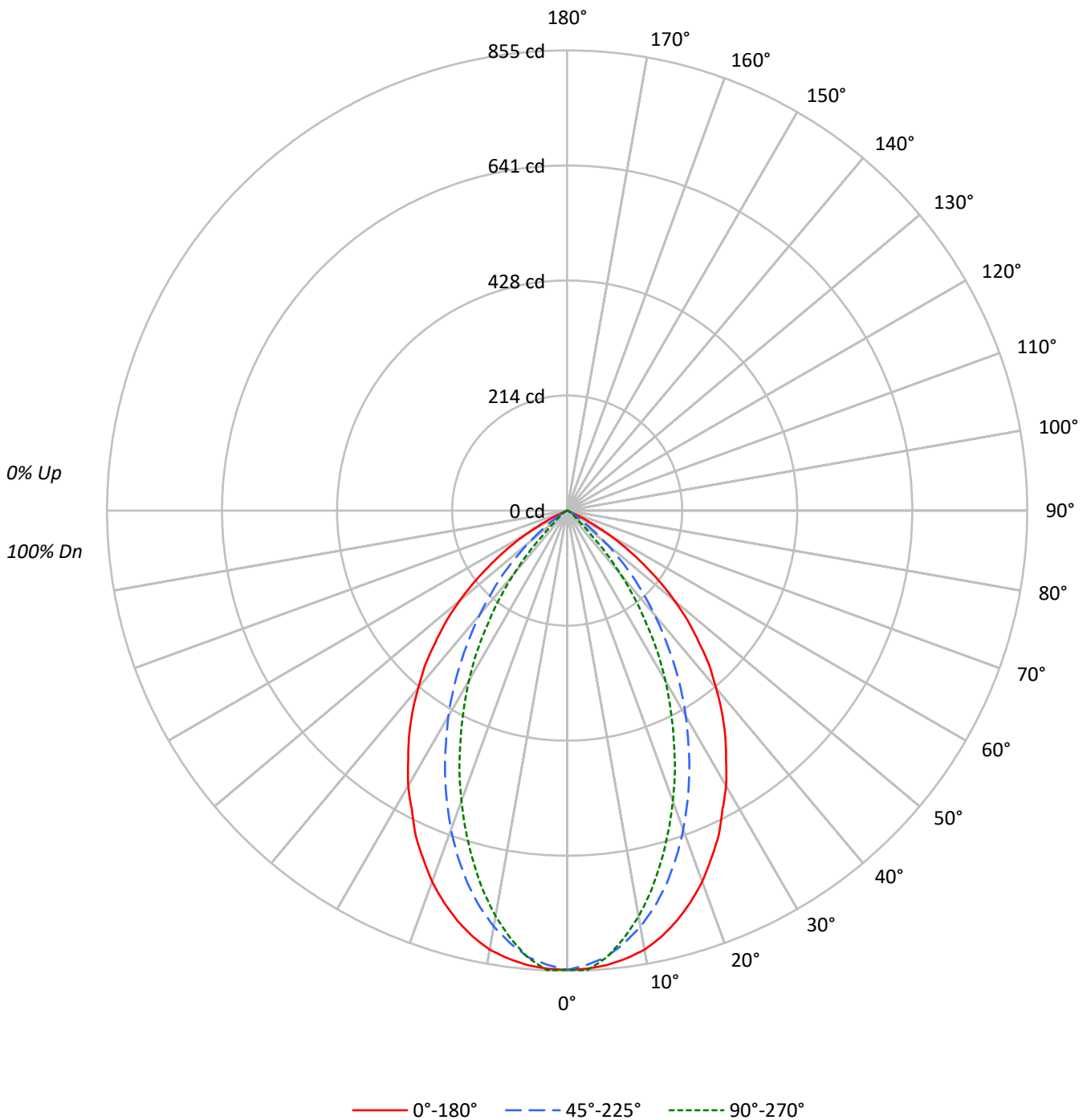
Lumens per Lamp: N/A
Luminaire Lumens: 973.7 lumens
Efficiency: N/A
Efficacy: 23.3 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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	100	100	98	97	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	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10020	10020	10020
5°	9993	9815	9831
10°	9879	9355	9125
15°	9588	8703	8202
20°	9168	7881	7176
25°	8634	6960	6070
30°	8011	5981	4956
35°	7347	4944	3683
40°	6593	3875	2359
45°	5751	2830	981
50°	4770	1682	376
55°	3517	704	280
60°	2130	258	162
65°	572	153	75
70°	0	48	48
75°	0	0	64
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5751 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.6	8.1
10°-20°	202.7	20.8
20°-30°	252.7	25.9
30°-40°	225.9	23.2
40°-50°	142.6	14.6
50°-60°	59.7	6.1
60°-70°	11.2	1.2
70°-80°	0.4	0.0
80°-90°	0.0	0.0
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°	533.9	54.8
0°-40°	759.8	78.0
0°-60°	962.1	98.8
0°-90°	973.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	973.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	853	853	853	853	853	
5°	848	846	833	835	834	80
15°	789	770	716	686	675	221
25°	666	613	537	490	468	305
35°	512	438	345	283	257	319
45°	346	269	170	91	59	267
55°	172	118	34	14	14	154
65°	21	15	6	3	3	29
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	853.3	853.3	853.3	853.3	853.3
2.5°	851.9	853.3	845.0	853.3	854.7
5°	847.8	846.4	832.7	835.4	834.0
7.5°	839.5	835.4	810.7	805.2	802.4
10°	828.5	817.6	784.6	770.8	765.3
12.5°	810.7	795.6	753.0	731.0	722.7
15°	788.7	769.5	715.9	685.6	674.7
17.5°	762.6	735.1	674.7	641.7	625.2
20°	733.7	695.3	630.7	590.8	574.3
22.5°	699.4	656.8	584.0	541.4	523.5
25°	666.4	612.8	537.2	490.5	468.5
27.5°	625.2	568.9	487.8	439.7	416.3
30°	590.8	526.3	441.1	387.5	365.5
32.5°	549.6	482.3	393.0	333.9	313.3
35°	512.5	438.3	344.9	283.1	256.9
37.5°	472.7	395.7	296.8	232.2	207.5
40°	430.1	353.1	252.8	181.4	153.9
42.5°	391.6	310.5	208.9	134.7	107.2
45°	346.3	269.3	170.4	90.7	59.1
47.5°	305.0	230.8	129.2	50.8	31.6
50°	261.1	191.0	92.1	26.1	20.6
52.5°	215.7	152.5	60.5	17.9	16.5
55°	171.8	118.2	34.4	13.7	13.7
57.5°	129.2	85.2	17.9	11.0	9.6
60°	90.7	56.3	11.0	8.2	6.9
62.5°	52.2	33.0	8.2	5.5	5.5
65°	20.6	15.1	5.5	2.7	2.7
67.5°	1.4	4.1	2.7	1.4	1.4
70°	0.0	0.0	1.4	1.4	1.4
72.5°	0.0	0.0	1.4	1.4	1.4
75°	0.0	0.0	0.0	0.0	1.4
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
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	13.20	14.38	13.56	14.69	15.00	0.00	0.00	0.00	0.00	0.03
	3H	13.04	14.07	13.42	14.40	14.77	0.00	0.00	0.00	0.00	0.00
	4H	12.95	13.91	13.36	14.26	14.65	0.00	0.00	0.00	0.00	0.00
	6H	12.86	13.73	13.28	14.10	14.50	0.00	0.00	0.00	0.00	0.00
	8H	12.81	13.63	13.24	14.02	14.43	0.00	0.00	0.00	0.00	0.00
	12H	12.76	13.54	13.19	13.93	14.36	0.00	0.00	0.00	0.00	0.00
4H	2H	12.96	13.91	13.36	14.26	14.65	0.00	0.00	0.00	0.00	0.13
	3H	12.79	13.56	13.21	13.97	14.37	0.00	0.00	0.00	0.00	0.01
	4H	12.69	13.37	13.12	13.79	14.24	0.00	0.00	0.00	0.00	0.00
	6H	12.59	13.18	13.06	13.62	14.10	0.00	0.00	0.00	0.00	0.00
	8H	12.53	13.07	13.00	13.52	13.99	0.00	0.00	0.00	0.00	0.00
	12H	12.47	12.95	12.96	13.43	13.91	0.00	0.00	0.00	0.00	0.00
8H	4H	12.53	13.07	13.00	13.52	13.99	0.00	0.00	0.00	0.00	0.00
	6H	12.41	12.85	12.92	13.35	13.83	0.00	0.00	0.00	0.00	0.00
	8H	12.34	12.73	12.87	13.25	13.75	0.00	0.00	0.00	0.00	0.00
	12H	12.28	12.63	12.80	13.13	13.71	0.00	0.00	0.00	0.00	0.00
12H	4H	12.47	12.95	12.96	13.43	13.91	0.00	0.00	0.00	0.00	0.00
	6H	12.34	12.73	12.87	13.25	13.75	0.00	0.00	0.00	0.00	0.00
	8H	12.28	12.63	12.80	13.13	13.71	0.00	0.00	0.00	0.00	0.00