

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: P1055671

Luminaire Tested: S123R3DR-S775D930-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055671
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DR-S775D930-X4F0-XX-UDD-F-B
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

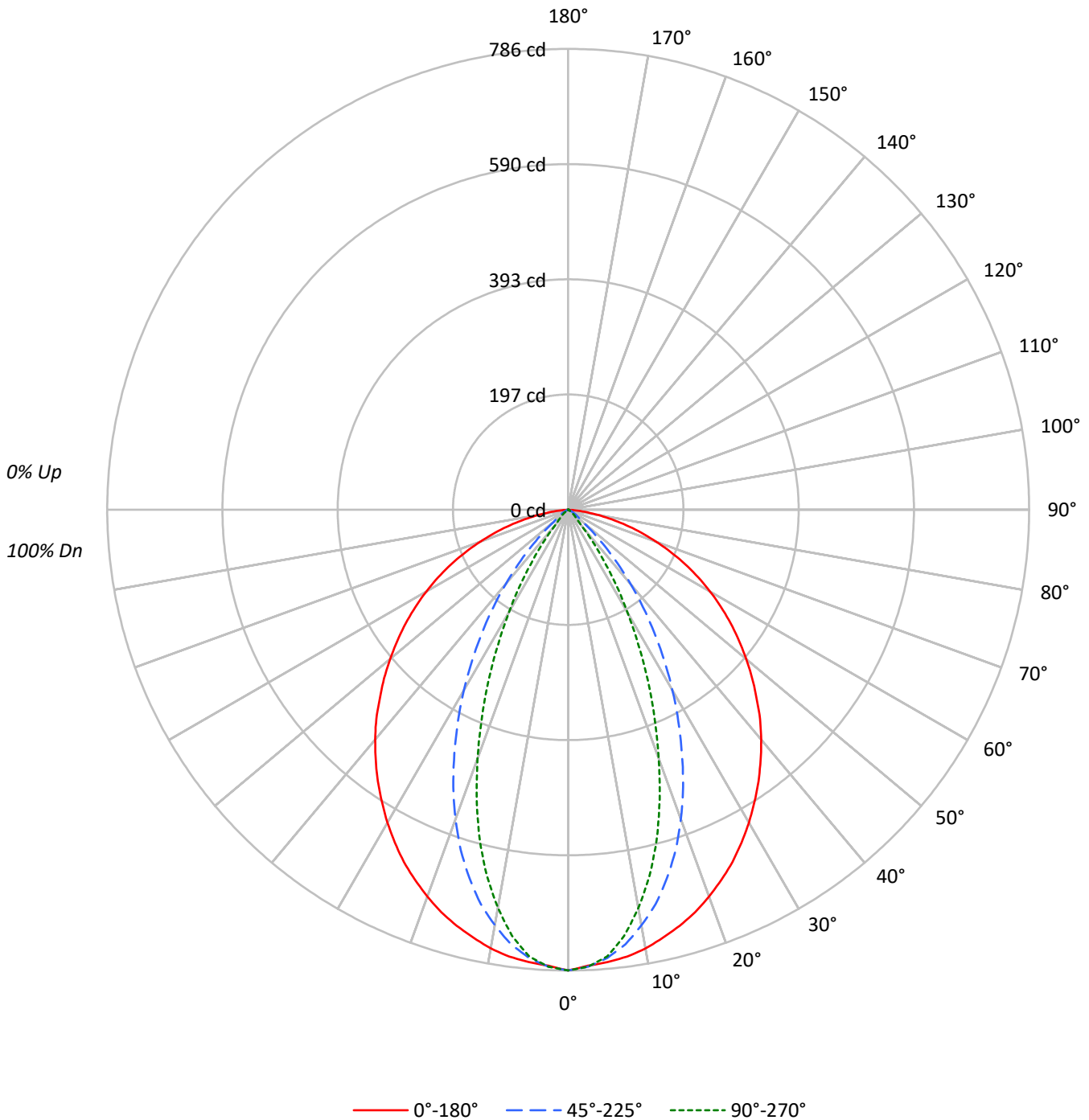
Lumens per Lamp: N/A
Luminaire Lumens: 919.8 lumens
Efficiency: N/A
Efficacy: 34.8 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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	112	108	105	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59
6	81	70	63	58	79	69	62	57	67	61	57	66	61	56	64	60	56	54
7	76	65	58	53	74	64	57	52	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46
9	68	56	49	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9475	9475	9475
5°	9373	9285	9255
10°	9303	8813	8444
15°	9169	8121	7276
20°	9007	7207	5795
25°	8817	6106	4273
30°	8581	4949	2804
35°	8328	3768	1537
40°	8058	2605	526
45°	7743	1516	305
50°	7431	596	184
55°	7111	376	86
60°	6742	236	39
65°	6279	117	23
70°	5633	56	28
75°	4784	37	37
80°	3569	56	0
85°	1356	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7743 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.1	7.8
10°-20°	182.9	19.9
20°-30°	218.1	23.7
30°-40°	185.0	20.1
40°-50°	125.8	13.7
50°-60°	77.9	8.5
60°-70°	39.5	4.3
70°-80°	16.1	1.7
80°-90°	2.5	0.3
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°	473.1	51.4
0°-40°	658.1	71.5
0°-60°	861.8	93.7
0°-90°	919.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	919.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	786	786	786	786	786	
5°	774	782	767	762	765	74
15°	735	716	651	599	583	207
25°	663	601	459	355	321	305
35°	566	454	256	138	104	354
45°	454	298	89	22	18	351
55°	338	150	18	6	4	302
65°	220	37	4	1	1	217
75°	103	6	1	1	1	109
85°	10	0	0	1	0	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	785.9	785.9	785.9	785.9	785.9
2.5°	778.6	789.2	780.2	779.4	780.2
5°	774.5	781.9	767.2	761.5	764.7
7.5°	768.8	772.1	747.6	733.0	733.0
10°	759.9	757.4	719.9	695.4	689.7
12.5°	747.6	737.8	688.9	650.6	640.0
15°	734.6	715.8	650.6	599.2	582.9
17.5°	719.9	691.4	609.0	542.2	518.5
20°	702.0	663.7	561.7	480.2	451.7
22.5°	683.2	633.5	512.0	416.6	384.8
25°	662.8	600.9	459.0	354.7	321.2
27.5°	640.0	566.6	406.8	295.1	258.4
30°	616.4	530.8	355.5	238.1	201.4
32.5°	591.1	493.3	304.1	185.9	151.6
35°	565.8	454.1	256.0	137.8	104.4
37.5°	538.9	415.0	209.5	95.4	66.0
40°	512.0	376.7	165.5	60.3	33.4
42.5°	484.3	336.7	125.6	30.2	22.8
45°	454.1	297.6	88.9	22.0	17.9
47.5°	425.6	260.1	58.7	17.9	13.9
50°	396.2	222.6	31.8	13.0	9.8
52.5°	366.9	186.7	22.8	9.8	6.5
55°	338.3	150.0	17.9	6.5	4.1
57.5°	309.0	118.2	13.9	4.1	2.4
60°	279.6	87.2	9.8	2.4	1.6
62.5°	250.3	60.3	6.5	1.6	0.8
65°	220.1	36.7	4.1	0.8	0.8
67.5°	189.1	25.3	2.4	0.8	0.8
70°	159.8	17.9	1.6	0.8	0.8
72.5°	130.4	11.4	0.8	0.8	0.0
75°	102.7	6.5	0.8	0.8	0.8
77.5°	75.8	2.4	0.8	0.8	0.0
80°	51.4	0.8	0.8	0.8	0.0
82.5°	28.5	0.0	0.8	0.8	0.0
85°	9.8	0.0	0.0	0.8	0.0
87.5°	0.0	0.0	0.0	0.8	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	16.86	18.14	17.23	18.45	18.77	0.00	0.00	0.00	0.00	0.00
	3H	18.81	19.94	19.19	20.27	20.64	0.00	0.00	0.00	0.00	0.00
	4H	19.63	20.69	20.04	21.04	21.42	0.00	0.00	0.00	0.00	0.00
	6H	20.19	21.15	20.60	21.53	21.92	0.00	0.00	0.00	0.00	0.00
	8H	20.31	21.23	20.74	21.62	22.03	0.00	0.00	0.00	0.00	0.00
	12H	20.34	21.21	20.77	21.59	22.03	0.00	0.00	0.00	0.00	0.00
4H	2H	16.62	17.68	17.03	18.03	18.41	0.00	0.00	0.00	0.00	0.00
	3H	18.58	19.44	18.99	19.84	20.25	0.00	0.00	0.00	0.00	0.00
	4H	19.39	20.16	19.83	20.58	21.02	0.00	0.00	0.00	0.00	0.00
	6H	19.99	20.65	20.45	21.10	21.57	0.00	0.00	0.00	0.00	0.00
	8H	20.14	20.76	20.61	21.21	21.68	0.00	0.00	0.00	0.00	0.00
	12H	20.19	20.73	20.68	21.22	21.69	0.00	0.00	0.00	0.00	0.00
8H	4H	19.25	19.87	19.72	20.31	20.78	0.00	0.00	0.00	0.00	0.00
	6H	19.83	20.33	20.33	20.83	21.31	0.00	0.00	0.00	0.00	0.00
	8H	19.98	20.43	20.50	20.94	21.44	0.00	0.00	0.00	0.00	0.00
	12H	20.04	20.43	20.55	20.93	21.50	0.00	0.00	0.00	0.00	0.00
12H	4H	19.20	19.74	19.69	20.23	20.70	0.00	0.00	0.00	0.00	0.00
	6H	19.77	20.22	20.29	20.73	21.23	0.00	0.00	0.00	0.00	0.00
	8H	19.93	20.33	20.45	20.82	21.40	0.00	0.00	0.00	0.00	0.00