

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: P1055673

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055673
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-4)
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-W
Description: DEFINE 3, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

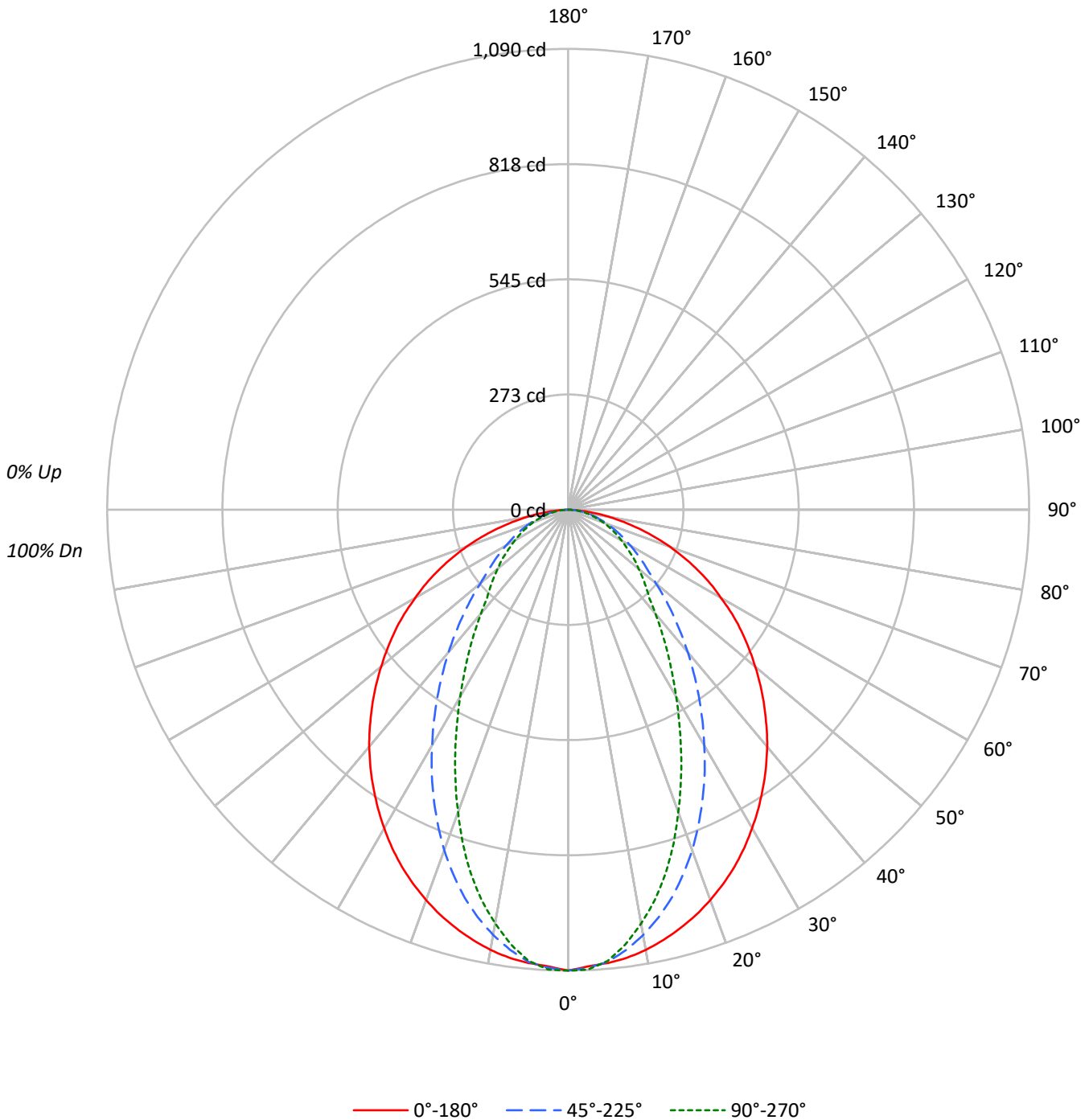
Lumens per Lamp: N/A
Luminaire Lumens: 1911.8 lumens
Efficiency: N/A
Efficacy: 72.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.83 / 1.02
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	83	79	76	74
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65
4	86	75	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57
5	80	68	60	54	78	67	60	54	65	58	53	63	57	53	62	56	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	39	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	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°	13143	13143	13143
5°	13025	12994	12965
10°	12945	12507	12166
15°	12791	11845	11112
20°	12604	10994	9770
25°	12386	10010	8406
30°	12110	8956	7106
35°	11820	7920	5999
40°	11522	6916	5043
45°	11176	5964	4448
50°	10826	5077	4083
55°	10506	4523	3771
60°	10065	4090	3518
65°	9651	3746	3304
70°	8996	3448	3106
75°	8049	3191	2925
80°	6908	2944	2715
85°	4855	2711	2601

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11176 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.0	5.3
10°-20°	267.3	14.0
20°-30°	352.2	18.4
30°-40°	357.4	18.7
40°-50°	310.7	16.3
50°-60°	243.4	12.7
60°-70°	165.4	8.7
70°-80°	89.6	4.7
80°-90°	24.7	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°	720.5	37.7
0°-40°	1078.0	56.4
0°-60°	1632.1	85.4
0°-90°	1911.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1911.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1090	1090	1090	1090	1090	
5°	1076	1089	1074	1064	1071	102
15°	1025	1010	949	902	890	289
25°	931	875	752	659	632	429
35°	803	708	538	435	408	502
45°	656	526	350	270	261	506
55°	500	347	215	183	179	446
65°	338	188	131	117	116	334
75°	173	86	68	64	63	184
85°	35	21	20	18	19	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1090.1	1090.1	1090.1	1090.1	1090.1
2.5°	1081.1	1094.9	1084.3	1085.2	1088.4
5°	1076.2	1089.2	1073.7	1064.0	1071.3
7.5°	1068.9	1078.6	1050.1	1034.6	1037.1
10°	1057.4	1060.7	1021.6	997.1	993.8
12.5°	1042.0	1036.2	987.3	951.5	945.7
15°	1024.8	1010.2	949.0	902.5	890.3
17.5°	1005.3	980.8	904.2	847.1	828.3
20°	982.4	948.2	856.9	784.3	761.5
22.5°	958.0	913.9	805.5	719.9	696.3
25°	931.1	874.8	752.5	658.8	631.9
27.5°	901.7	835.7	698.7	598.4	568.3
30°	869.9	794.9	643.3	539.7	510.4
32.5°	837.3	751.7	590.3	485.1	456.6
35°	803.1	707.7	538.1	435.4	407.6
37.5°	768.0	662.8	487.5	388.1	362.0
40°	732.1	617.2	439.4	344.1	320.4
42.5°	693.8	571.5	393.0	302.5	284.5
45°	655.5	525.9	349.8	269.9	260.9
47.5°	617.2	479.4	309.0	247.0	238.9
50°	577.2	434.6	270.7	225.8	217.7
52.5°	538.1	390.5	238.9	205.5	199.7
55°	499.8	347.3	215.2	183.4	179.4
57.5°	459.8	304.9	191.6	166.3	161.4
60°	417.4	264.2	169.6	148.4	145.9
62.5°	379.1	225.8	150.0	132.9	130.4
65°	338.3	187.5	131.3	117.4	115.8
67.5°	296.8	155.7	114.1	102.7	101.9
70°	255.2	131.3	97.8	88.9	88.1
72.5°	214.4	108.4	82.3	76.6	75.0
75°	172.8	86.4	68.5	63.6	62.8
77.5°	135.3	66.9	54.6	51.4	50.5
80°	99.5	49.7	42.4	39.9	39.1
82.5°	65.2	34.2	30.2	28.5	28.5
85°	35.1	21.2	19.6	17.9	18.8
87.5°	12.2	9.0	9.0	8.2	9.0
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	19.51	21.00	19.87	21.31	21.63	14.66	16.15	15.02	16.46	16.78
	3H	21.39	22.73	21.77	23.06	23.42	16.28	17.62	16.66	17.95	18.31
	4H	22.15	23.41	22.55	23.75	24.13	16.92	18.18	17.32	18.53	18.90
	6H	22.71	23.87	23.13	24.24	24.63	17.41	18.57	17.82	18.94	19.33
	8H	22.89	23.99	23.31	24.38	24.78	17.58	18.68	18.01	19.07	19.48
	12H	22.98	24.04	23.42	24.42	24.85	17.70	18.76	18.13	19.14	19.57
4H	2H	19.55	20.81	19.95	21.16	21.54	15.38	16.64	15.78	16.99	17.37
	3H	21.57	22.61	21.98	23.01	23.42	17.21	18.25	17.62	18.65	19.05
	4H	22.39	23.33	22.82	23.74	24.18	17.95	18.89	18.38	19.31	19.75
	6H	23.07	23.89	23.53	24.33	24.79	18.56	19.38	19.02	19.82	20.28
	8H	23.30	24.06	23.76	24.51	24.98	18.77	19.54	19.24	19.98	20.45
	12H	23.45	24.13	23.94	24.61	25.08	18.94	19.62	19.43	20.10	20.57
8H	4H	22.41	23.18	22.88	23.62	24.09	18.34	19.10	18.80	19.54	20.01
	6H	23.14	23.77	23.64	24.26	24.74	19.06	19.69	19.56	20.19	20.66
	8H	23.41	23.98	23.92	24.49	24.97	19.35	19.92	19.86	20.43	20.91
	12H	23.62	24.12	24.13	24.61	25.18	19.59	20.09	20.10	20.59	21.15
12H	4H	22.40	23.08	22.88	23.56	24.03	18.39	19.07	18.87	19.55	20.02
	6H	23.12	23.69	23.64	24.20	24.69	19.15	19.71	19.66	20.22	20.71
	8H	23.43	23.93	23.94	24.42	24.99	19.49	19.99	20.00	20.48	21.05