

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: P1055670

Luminaire Tested: S123R3DRP-S775D927-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055670
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: S123R3DRP-S775D927-X4F0-XX-UDD-F-W
Description: DEFINE 3, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

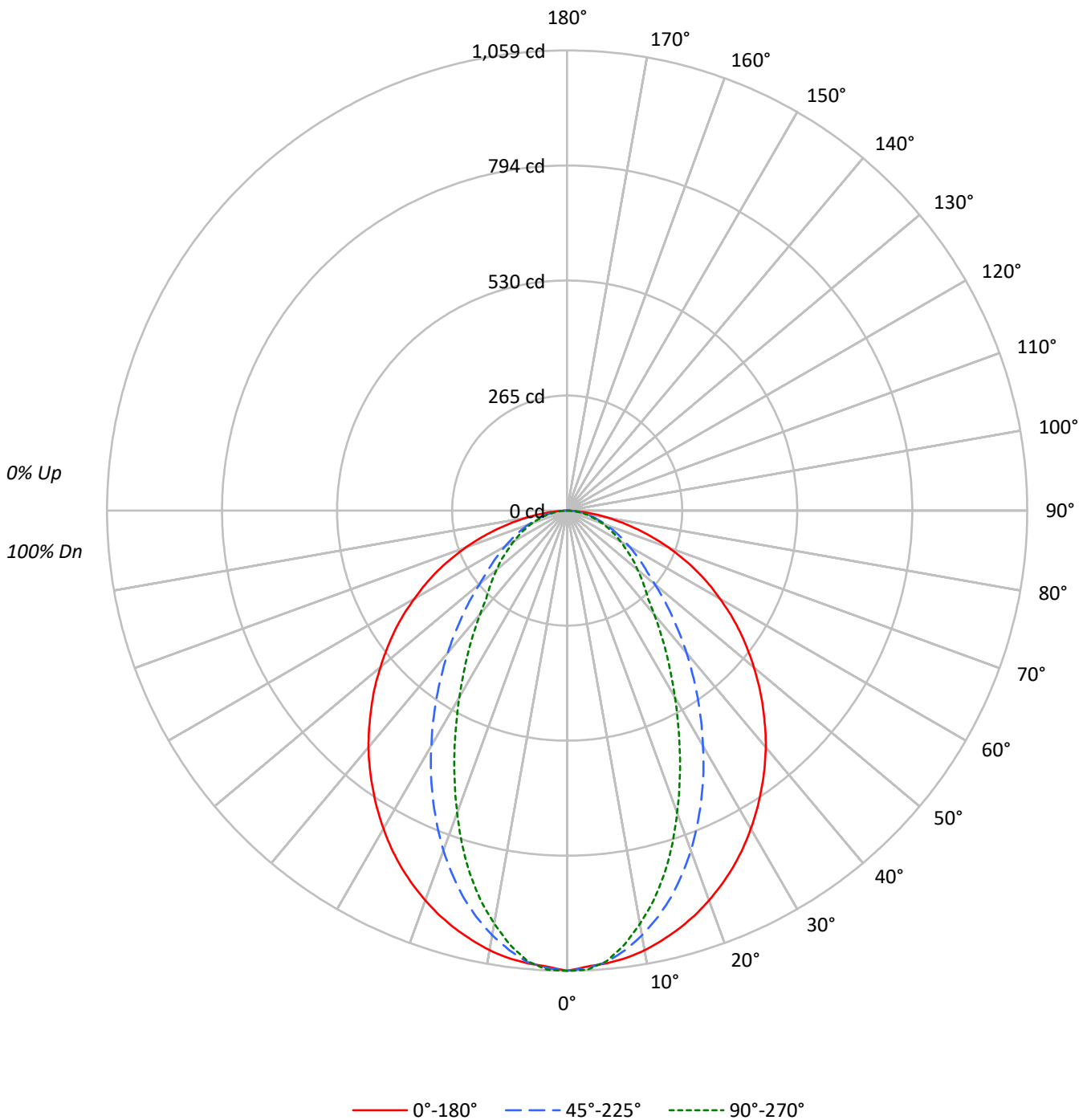
Lumens per Lamp: N/A
Luminaire Lumens: 1857.5 lumens
Efficiency: N/A
Efficacy: 70.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.83 / 1.02
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

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°	12769	12769	12769
5°	12656	12626	12597
10°	12579	12152	11822
15°	12429	11509	10798
20°	12248	10682	9493
25°	12035	9727	8167
30°	11768	8701	6904
35°	11485	7695	5830
40°	11196	6720	4899
45°	10859	5794	4322
50°	10520	4933	3967
55°	10207	4395	3664
60°	9780	3974	3419
65°	9380	3637	3209
70°	8742	3352	3017
75°	7821	3098	2842
80°	6707	2861	2638
85°	4717	2628	2518

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10859 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.2	5.3
10°-20°	259.8	14.0
20°-30°	342.2	18.4
30°-40°	347.3	18.7
40°-50°	301.9	16.3
50°-60°	236.5	12.7
60°-70°	160.7	8.7
70°-80°	87.1	4.7
80°-90°	24.0	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°	700.1	37.7
0°-40°	1047.4	56.4
0°-60°	1585.8	85.4
0°-90°	1857.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1857.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1059	1059	1059	1059	1059	
5°	1046	1058	1043	1034	1041	99
15°	996	982	922	877	865	281
25°	905	850	731	640	614	416
35°	780	688	523	423	396	488
45°	637	511	340	262	254	492
55°	486	338	209	178	174	433
65°	329	182	128	114	112	325
75°	168	84	66	62	61	179
85°	34	21	19	17	18	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1059.1	1059.1	1059.1	1059.1	1059.1
2.5°	1050.4	1063.9	1053.6	1054.4	1057.6
5°	1045.7	1058.4	1043.3	1033.8	1040.9
7.5°	1038.5	1048.1	1020.3	1005.3	1007.7
10°	1027.5	1030.6	992.6	968.8	965.7
12.5°	1012.4	1006.9	959.3	924.5	918.9
15°	995.8	981.5	922.1	876.9	865.1
17.5°	976.8	953.0	878.5	823.1	804.9
20°	954.6	921.3	832.6	762.1	739.9
22.5°	930.8	888.0	782.7	699.5	676.5
25°	904.7	850.0	731.2	640.1	613.9
27.5°	876.2	812.0	678.9	581.5	552.1
30°	845.3	772.4	625.0	524.4	495.9
32.5°	813.6	730.4	573.5	471.3	443.6
35°	780.3	687.6	522.8	423.0	396.1
37.5°	746.2	644.0	473.7	377.1	351.7
40°	711.4	599.7	427.0	334.3	311.3
42.5°	674.1	555.3	381.8	293.9	276.5
45°	636.9	511.0	339.8	262.2	253.5
47.5°	599.7	465.8	300.2	240.0	232.1
50°	560.9	422.2	263.0	219.4	211.5
52.5°	522.8	379.5	232.1	199.6	194.1
55°	485.6	337.5	209.1	178.2	174.3
57.5°	446.8	296.3	186.2	161.6	156.9
60°	405.6	256.7	164.8	144.2	141.8
62.5°	368.4	219.4	145.8	129.1	126.7
65°	328.8	182.2	127.5	114.1	112.5
67.5°	288.4	151.3	110.9	99.8	99.0
70°	248.0	127.5	95.1	86.3	85.6
72.5°	208.3	105.4	80.0	74.5	72.9
75°	167.9	84.0	66.5	61.8	61.0
77.5°	131.5	65.0	53.1	49.9	49.1
80°	96.6	48.3	41.2	38.8	38.0
82.5°	63.4	33.3	29.3	27.7	27.7
85°	34.1	20.6	19.0	17.4	18.2
87.5°	11.9	8.7	8.7	7.9	8.7
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	19.41	20.90	19.77	21.21	21.53	14.56	16.05	14.92	16.36	16.68
	3H	21.29	22.63	21.67	22.96	23.32	16.18	17.52	16.56	17.85	18.21
	4H	22.05	23.31	22.45	23.66	24.03	16.82	18.08	17.22	18.43	18.80
	6H	22.61	23.77	23.03	24.14	24.53	17.31	18.47	17.72	18.84	19.23
	8H	22.79	23.89	23.21	24.28	24.68	17.48	18.58	17.91	18.97	19.38
	12H	22.89	23.94	23.32	24.32	24.75	17.60	18.66	18.04	19.04	19.47
4H	2H	19.45	20.71	19.85	21.06	21.44	15.28	16.54	15.68	16.89	17.27
	3H	21.47	22.51	21.88	22.91	23.32	17.11	18.15	17.52	18.55	18.95
	4H	22.29	23.23	22.72	23.64	24.08	17.85	18.79	18.28	19.21	19.65
	6H	22.97	23.79	23.43	24.23	24.69	18.46	19.28	18.92	19.72	20.18
	8H	23.20	23.97	23.67	24.41	24.88	18.67	19.44	19.14	19.88	20.35
	12H	23.35	24.04	23.84	24.51	24.99	18.84	19.52	19.33	20.00	20.47
8H	4H	22.31	23.08	22.78	23.52	23.99	18.24	19.00	18.70	19.44	19.91
	6H	23.04	23.67	23.54	24.16	24.64	18.96	19.59	19.46	20.09	20.56
	8H	23.31	23.88	23.83	24.39	24.88	19.25	19.82	19.77	20.33	20.82
	12H	23.52	24.02	24.03	24.51	25.08	19.49	19.99	20.00	20.49	21.05
12H	4H	22.30	22.98	22.78	23.46	23.93	18.29	18.97	18.77	19.45	19.92
	6H	23.03	23.59	23.54	24.10	24.59	19.05	19.61	19.56	20.12	20.61
	8H	23.33	23.83	23.84	24.32	24.89	19.39	19.89	19.90	20.38	20.95