

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: P1055250

Luminaire Tested: S122R3DR-S675D950-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055250
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122R3DR-S675D950-X4F0-XX-UDD-F-W
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

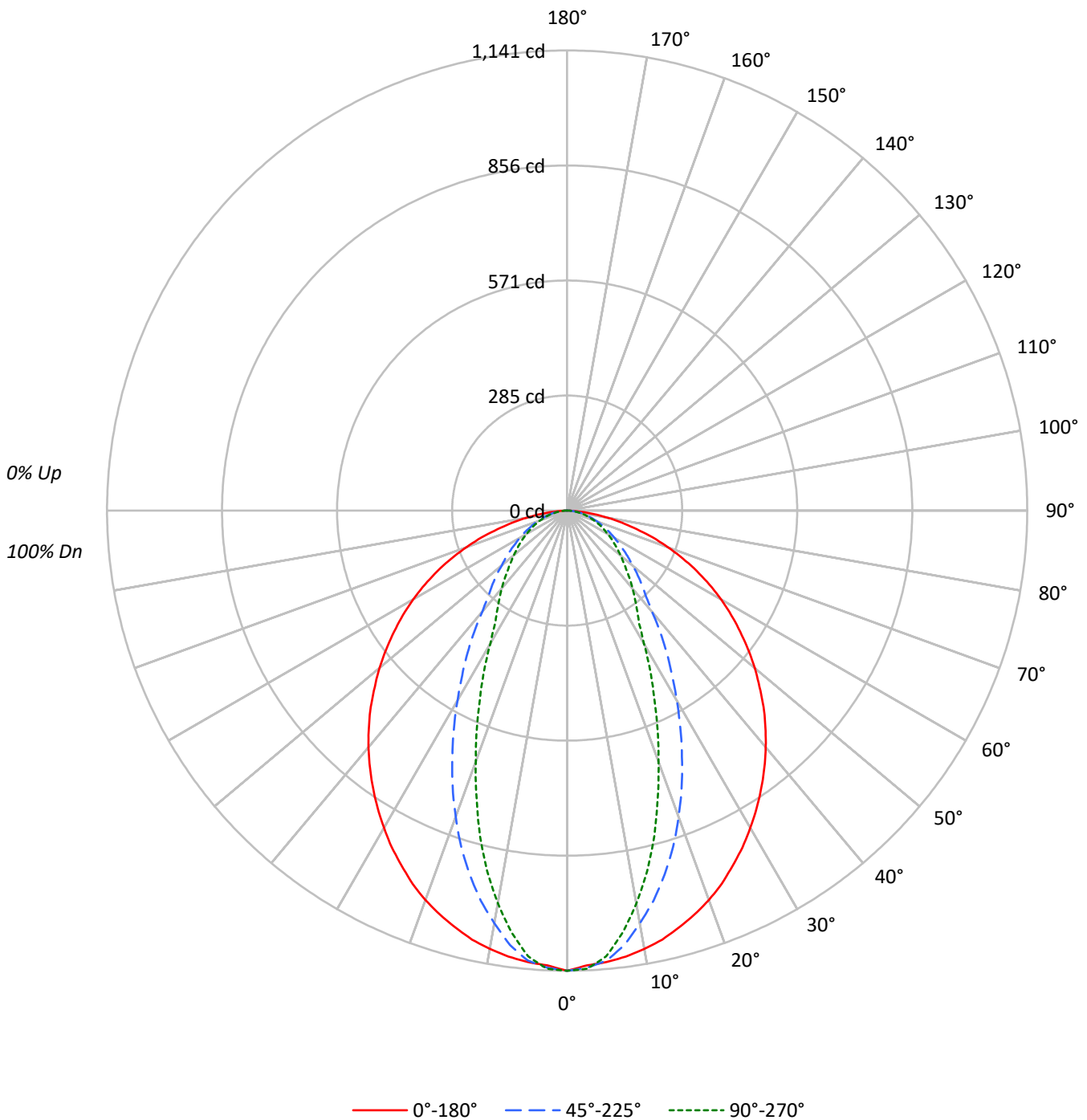
Lumens per Lamp: N/A
Luminaire Lumens: 1725.8 lumens
Efficiency: N/A
Efficacy: 65.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.71 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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	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	101	97	100	97	94	96	94	92	92	91	89	87				87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75				75
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66				66
4	87	76	69	63	85	75	68	62	73	66	61	71	65	61	68	64	60	58				58
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54	52				52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46				46
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42				42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				38
9	62	50	43	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35				35
10	59	47	39	35	58	46	39	34	45	39	34	44	38	34	43	38	34	32				32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21617	21617	21617
5°	21373	21300	21101
10°	21235	19986	19032
15°	20995	18320	16374
20°	20716	16291	13367
25°	20302	14079	10670
30°	19868	11897	8326
35°	19416	9952	6994
40°	18947	8070	6230
45°	18455	7055	5573
50°	17912	6243	5090
55°	17298	5642	4727
60°	16699	5134	4411
65°	15910	4703	4147
70°	14746	4387	3911
75°	13059	3982	3704
80°	11140	3742	3437
85°	7673	3326	3109

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 18455 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.6	6.1
10°-20°	264.0	15.3
20°-30°	325.3	18.8
30°-40°	312.1	18.1
40°-50°	269.2	15.6
50°-60°	208.8	12.1
60°-70°	143.0	8.3
70°-80°	77.6	4.5
80°-90°	21.3	1.2
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°	693.8	40.2
0°-40°	1005.9	58.3
0°-60°	1483.9	86.0
0°-90°	1725.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1725.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1141	1141	1141	1141	1141	
5°	1124	1140	1120	1106	1110	107
15°	1070	1038	934	858	835	302
25°	971	867	674	550	510	448
35°	840	666	430	320	302	525
45°	689	464	263	218	208	531
55°	524	279	171	148	143	469
65°	355	152	105	95	92	350
75°	178	70	54	52	51	191
85°	35	17	15	15	14	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1141.0	1141.0	1141.0	1141.0	1141.0
2.5°	1128.6	1147.7	1134.3	1134.3	1137.2
5°	1123.8	1140.0	1120.0	1105.7	1109.5
7.5°	1115.2	1126.7	1086.6	1056.1	1055.1
10°	1103.8	1104.7	1038.9	998.8	989.3
12.5°	1089.5	1074.2	990.3	930.2	915.8
15°	1070.4	1038.0	934.0	857.6	834.8
17.5°	1050.4	1000.7	873.9	778.5	747.0
20°	1027.5	955.9	808.0	699.3	663.0
22.5°	1001.7	913.0	742.2	623.0	584.8
25°	971.2	867.2	673.5	549.5	510.4
27.5°	941.6	820.4	607.7	484.6	444.6
30°	908.2	769.9	543.8	422.6	380.6
32.5°	874.8	718.4	484.6	363.5	332.0
35°	839.5	665.9	430.3	320.5	302.4
37.5°	803.3	614.4	378.7	291.9	275.7
40°	766.1	562.9	326.3	264.3	251.9
42.5°	727.9	512.3	290.0	241.4	229.9
45°	688.8	463.6	263.3	217.5	208.0
47.5°	646.8	415.0	237.5	197.5	188.9
50°	607.7	368.2	211.8	179.4	172.7
52.5°	565.7	322.5	190.8	163.1	157.4
55°	523.7	278.6	170.8	147.9	143.1
57.5°	482.7	236.6	151.7	133.6	129.7
60°	440.7	203.2	135.5	120.2	116.4
62.5°	397.8	176.5	120.2	107.8	104.0
65°	354.9	151.7	104.9	95.4	92.5
67.5°	310.1	127.8	91.6	84.0	82.0
70°	266.2	106.8	79.2	72.5	70.6
72.5°	223.2	86.8	66.8	62.0	60.1
75°	178.4	69.6	54.4	51.5	50.6
77.5°	139.3	54.4	43.9	42.0	41.0
80°	102.1	40.1	34.3	32.4	31.5
82.5°	67.7	27.7	24.8	23.9	22.9
85°	35.3	17.2	15.3	15.3	14.3
87.5°	11.4	7.6	7.6	7.6	6.7
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	20.29	21.76	20.65	22.07	22.38	15.09	16.56	15.46	16.88	17.19
	3H	22.62	23.93	22.99	24.26	24.62	16.74	18.06	17.12	18.39	18.75
	4H	23.51	24.75	23.91	25.10	25.48	17.38	18.61	17.78	18.96	19.34
	6H	24.17	25.31	24.59	25.68	26.07	17.87	19.01	18.28	19.38	19.77
	8H	24.38	25.47	24.81	25.86	26.26	18.04	19.12	18.47	19.51	19.92
	12H	24.50	25.54	24.93	25.92	26.35	18.16	19.19	18.59	19.58	20.01
4H	2H	20.30	21.54	20.70	21.89	22.27	15.81	17.04	16.21	17.39	17.77
	3H	22.72	23.74	23.13	24.14	24.54	17.66	18.68	18.07	19.08	19.48
	4H	23.64	24.57	24.08	24.98	25.42	18.40	19.33	18.84	19.74	20.18
	6H	24.42	25.22	24.88	25.67	26.13	19.02	19.82	19.48	20.26	20.72
	8H	24.69	25.44	25.16	25.89	26.36	19.23	19.98	19.70	20.43	20.90
	12H	24.87	25.54	25.35	26.02	26.49	19.40	20.06	19.88	20.54	21.02
8H	4H	23.64	24.39	24.10	24.83	25.30	18.78	19.53	19.25	19.98	20.44
	6H	24.45	25.06	24.94	25.56	26.03	19.52	20.14	20.02	20.63	21.11
	8H	24.75	25.30	25.26	25.81	26.30	19.82	20.37	20.33	20.88	21.37
	12H	24.98	25.47	25.49	25.96	26.53	20.06	20.55	20.57	21.04	21.61
12H	4H	23.62	24.29	24.10	24.77	25.24	18.84	19.51	19.32	19.99	20.46
	6H	24.42	24.98	24.94	25.49	25.98	19.61	20.16	20.12	20.67	21.16
	8H	24.76	25.24	25.27	25.74	26.30	19.96	20.45	20.47	20.94	21.51