

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: P1056370

Luminaire Tested: S125R3DR-S1090D927-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056370
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-11)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-S1090D927-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

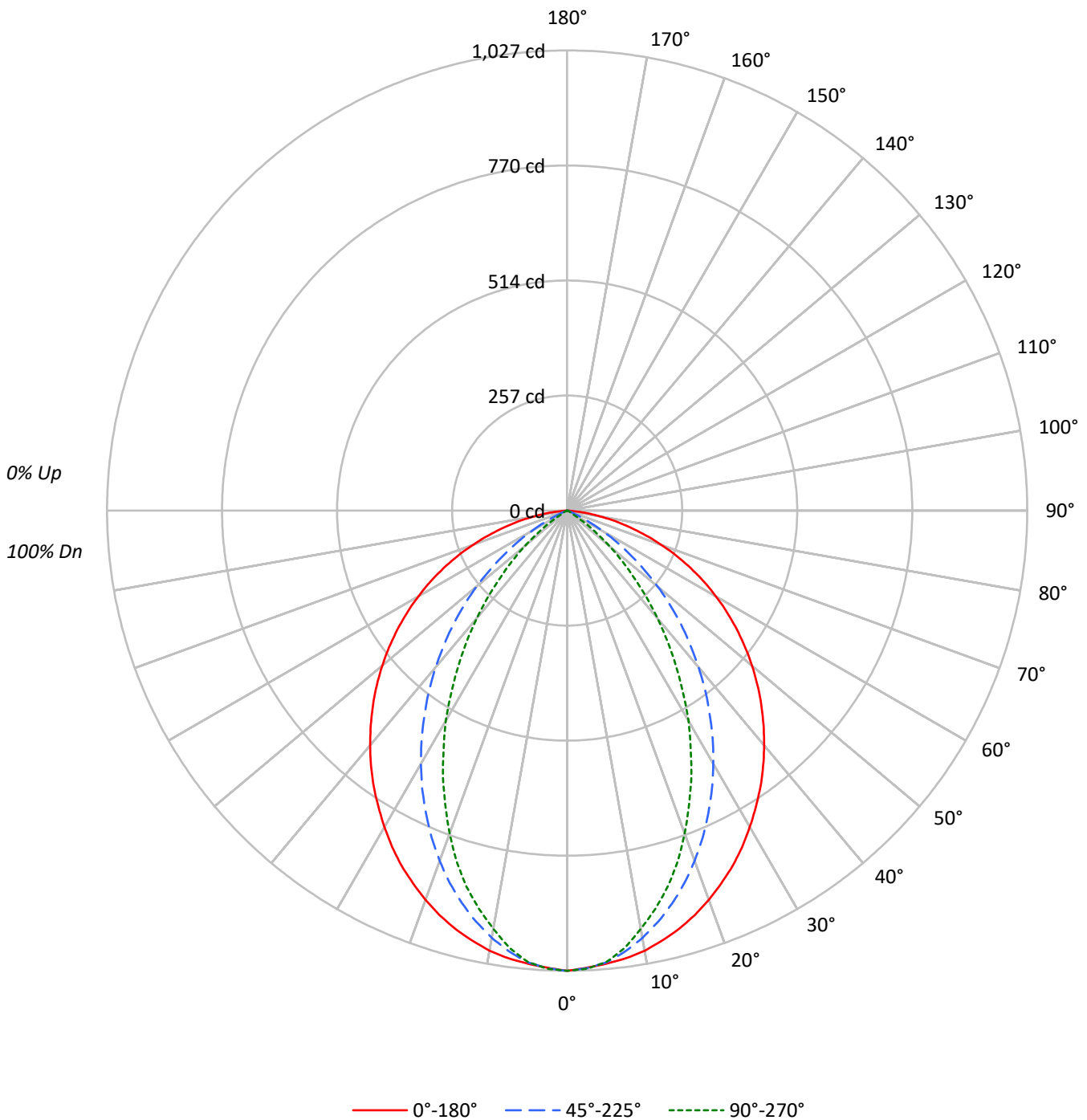
Lumens per Lamp: N/A
Luminaire Lumens: 1664.9 lumens
Efficiency: N/A
Efficacy: 48.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
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

TEST NUMBER: P1056370

CATALOG NUMBER: S125R3DR-S1090D927-X4F0-XX-UDD-F-B

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	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7262	7262	7262
5°	7203	7181	7174
10°	7161	6949	6804
15°	7071	6638	6356
20°	6954	6257	5767
25°	6821	5813	5114
30°	6656	5326	4421
35°	6492	4788	3655
40°	6313	4209	2893
45°	6127	3593	2096
50°	5922	2900	1355
55°	5697	2120	603
60°	5426	1309	172
65°	5092	477	102
70°	4607	167	41
75°	4004	55	27
80°	3066	41	0
85°	1403	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6127 cd/sqm



TEST NUMBER: P1056370

CATALOG NUMBER: S125R3DR-S1090D927-X4F0-XX-UDD-F-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.4	5.7
10°-20°	256.2	15.4
20°-30°	346.6	20.8
30°-40°	356.0	21.4
40°-50°	295.0	17.7
50°-60°	189.4	11.4
60°-70°	91.5	5.5
70°-80°	30.9	1.9
80°-90°	4.0	0.2
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°	698.2	41.9
0°-40°	1054.2	63.3
0°-60°	1538.5	92.4
0°-90°	1664.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1664.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1027	1027	1027	1027	1027	
5°	1015	1023	1012	1006	1011	96
15°	966	954	907	876	868	272
25°	874	832	745	678	656	402
35°	752	680	555	458	424	470
45°	613	512	359	248	210	473
55°	462	339	172	75	49	413
65°	304	168	28	8	6	301
75°	147	32	2	1	1	155
85°	17	0	0	0	0	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1027.2	1027.2	1027.2	1027.2	1027.2
2.5°	1021.1	1029.2	1022.1	1021.1	1023.1
5°	1015.0	1023.1	1011.9	1005.8	1010.9
7.5°	1007.8	1011.9	992.6	982.4	984.4
10°	997.6	996.6	968.1	950.8	947.8
12.5°	982.4	977.3	939.6	915.2	910.1
15°	966.1	953.9	907.0	875.5	868.4
17.5°	946.7	927.4	871.4	830.7	820.5
20°	924.3	897.9	831.7	781.8	766.6
22.5°	899.9	866.3	790.0	730.9	710.6
25°	874.5	831.7	745.2	678.0	655.6
27.5°	846.0	796.1	700.4	624.0	596.6
30°	815.4	758.4	652.5	569.1	541.6
32.5°	783.9	720.7	604.7	514.1	480.5
35°	752.3	680.0	554.8	458.1	423.5
37.5°	718.7	639.3	505.9	405.2	367.5
40°	684.1	597.6	456.1	350.2	313.5
42.5°	648.5	554.8	406.2	298.3	260.6
45°	612.8	512.1	359.4	248.4	209.7
47.5°	576.2	468.3	310.5	199.5	165.9
50°	538.5	425.5	263.7	155.8	123.2
52.5°	500.9	381.8	215.8	113.0	83.5
55°	462.2	339.0	172.0	75.3	48.9
57.5°	423.5	295.2	131.3	41.7	18.3
60°	383.8	253.5	92.6	14.3	12.2
62.5°	345.1	208.7	58.0	11.2	9.2
65°	304.4	168.0	28.5	8.1	6.1
67.5°	264.7	129.3	12.2	5.1	3.1
70°	222.9	93.7	8.1	3.1	2.0
72.5°	184.3	60.1	5.1	2.0	1.0
75°	146.6	31.6	2.0	1.0	1.0
77.5°	109.9	13.2	1.0	1.0	1.0
80°	75.3	6.1	1.0	1.0	0.0
82.5°	44.8	2.0	1.0	1.0	0.0
85°	17.3	0.0	0.0	0.0	0.0
87.5°	1.0	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	17.96	19.34	18.32	19.65	19.97	2.82	4.20	3.18	4.51	4.83
	3H	19.51	20.73	19.89	21.06	21.43	2.74	3.97	3.12	4.30	4.66
	4H	20.03	21.17	20.43	21.52	21.91	2.67	3.82	3.07	4.17	4.55
	6H	20.37	21.42	20.78	21.79	22.18	2.60	3.65	3.02	4.02	4.42
	8H	20.45	21.45	20.88	21.84	22.24	2.56	3.56	2.99	3.95	4.35
	12H	20.47	21.42	20.90	21.80	22.23	2.52	3.47	2.95	3.86	4.29
4H	2H	17.76	18.90	18.16	19.25	19.64	3.68	4.83	4.08	5.18	5.56
	3H	19.37	20.31	19.79	20.71	21.11	3.63	4.56	4.04	4.97	5.37
	4H	19.90	20.73	20.33	21.15	21.59	3.55	4.39	3.99	4.80	5.25
	6H	20.27	20.99	20.73	21.44	21.90	3.49	4.21	3.95	4.65	5.12
	8H	20.37	21.04	20.84	21.49	21.96	3.44	4.11	3.90	4.55	5.02
	12H	20.40	21.00	20.89	21.48	21.95	3.39	3.99	3.88	4.47	4.94
8H	4H	19.77	20.44	20.24	20.89	21.36	4.58	5.25	5.04	5.69	6.16
	6H	20.12	20.67	20.63	21.17	21.65	4.49	5.04	4.99	5.54	6.02
	8H	20.22	20.71	20.74	21.23	21.72	4.44	4.93	4.96	5.45	5.94
	12H	20.26	20.70	20.78	21.19	21.76	4.40	4.83	4.91	5.33	5.90
12H	4H	19.73	20.32	20.21	20.80	21.28	4.65	5.25	5.14	5.73	6.20
	6H	20.06	20.56	20.58	21.07	21.56	4.56	5.05	5.08	5.56	6.05
	8H	20.18	20.61	20.69	21.11	21.68	4.52	4.96	5.04	5.45	6.02