

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: P1056532

Luminaire Tested: S125R3DR-H1270D927-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056532
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-H1270D927-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

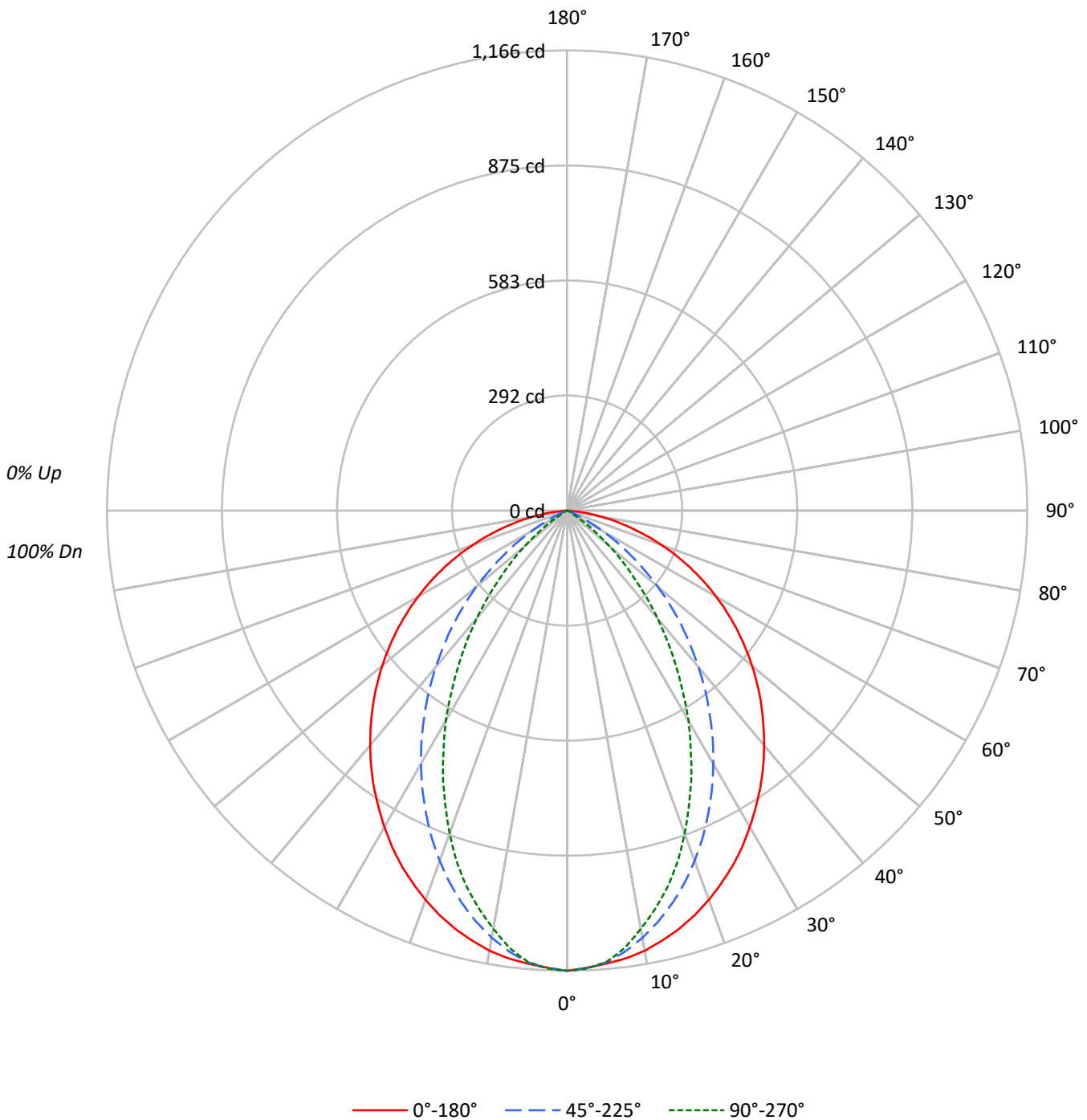
Lumens per Lamp: N/A
Luminaire Lumens: 1890.1 lumens
Efficiency: N/A
Efficacy: 51.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 36.6
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	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°	8244	8244	8244
5°	8176	8152	8144
10°	8130	7890	7724
15°	8027	7536	7215
20°	7895	7103	6547
25°	7743	6599	5806
30°	7556	6047	5019
35°	7371	5436	4149
40°	7167	4778	3285
45°	6955	4079	2380
50°	6724	3292	1538
55°	6467	2407	684
60°	6160	1487	197
65°	5781	542	115
70°	5231	190	48
75°	4545	63	33
80°	3481	49	0
85°	1590	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6955 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.3	5.7
10°-20°	290.8	15.4
20°-30°	393.4	20.8
30°-40°	404.2	21.4
40°-50°	334.9	17.7
50°-60°	215.0	11.4
60°-70°	103.9	5.5
70°-80°	35.1	1.9
80°-90°	4.5	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°	792.6	41.9
0°-40°	1196.8	63.3
0°-60°	1746.6	92.4
0°-90°	1890.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1890.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1166	1166	1166	1166	1166	
5°	1152	1162	1149	1142	1148	109
15°	1097	1083	1030	994	986	309
25°	993	944	846	770	744	457
35°	854	772	630	520	481	534
45°	696	581	408	282	238	536
55°	525	385	195	86	56	469
65°	346	191	32	9	7	342
75°	166	36	2	1	1	176
85°	20	0	0	0	0	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1166.1	<i>1166.1</i>	1166.1	1166.1	1166.1
2.5°	<i>1159.2</i>	<i>1168.4</i>	<i>1160.3</i>	<i>1159.2</i>	<i>1161.5</i>
5°	1152.2	<i>1161.5</i>	1148.8	1141.8	1147.6
7.5°	1144.1	<i>1148.8</i>	1126.8	1115.3	1117.6
10°	1132.6	<i>1131.4</i>	1099.1	1079.4	1076.0
12.5°	1115.3	<i>1109.5</i>	1066.7	1039.0	1033.2
15°	1096.8	<i>1082.9</i>	1029.7	993.9	985.8
17.5°	1074.8	<i>1052.8</i>	989.3	943.1	931.5
20°	1049.4	<i>1019.3</i>	944.2	887.6	870.2
22.5°	1021.6	<i>983.5</i>	896.8	829.8	806.7
25°	992.7	<i>944.2</i>	846.0	769.7	744.3
27.5°	960.4	<i>903.8</i>	795.1	708.4	677.2
30°	925.7	<i>861.0</i>	740.8	646.0	614.8
32.5°	889.9	<i>818.2</i>	686.5	583.6	545.5
35°	854.1	<i>772.0</i>	629.9	520.1	480.8
37.5°	815.9	<i>725.8</i>	574.4	460.0	417.2
40°	776.6	<i>678.4</i>	517.8	397.6	356.0
42.5°	736.2	<i>629.9</i>	461.1	338.6	295.9
45°	695.7	<i>581.3</i>	408.0	282.0	238.1
47.5°	654.1	<i>531.6</i>	352.5	226.5	188.4
50°	611.4	<i>483.1</i>	299.3	176.8	139.8
52.5°	568.6	<i>433.4</i>	245.0	128.3	94.8
55°	524.7	<i>384.8</i>	195.3	85.5	55.5
57.5°	480.8	<i>335.2</i>	149.1	47.4	20.8
60°	435.7	<i>287.8</i>	105.2	16.2	13.9
62.5°	391.8	<i>236.9</i>	65.9	12.7	10.4
65°	345.6	<i>190.7</i>	32.4	9.2	6.9
67.5°	300.5	<i>146.8</i>	13.9	5.8	3.5
70°	253.1	<i>106.3</i>	9.2	3.5	2.3
72.5°	209.2	<i>68.2</i>	5.8	2.3	1.2
75°	166.4	<i>35.8</i>	2.3	1.2	1.2
77.5°	124.8	<i>15.0</i>	1.2	1.2	1.2
80°	85.5	<i>6.9</i>	1.2	1.2	0.0
82.5°	50.9	<i>2.3</i>	1.2	1.2	0.0
85°	19.6	<i>0.0</i>	0.0	0.0	0.0
87.5°	1.2	<i>0.0</i>	0.0	0.0	0.0
90°	0.0	<i>0.0</i>	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	18.40	19.78	18.76	20.10	20.41	3.26	4.65	3.63	4.96	5.28
	3H	19.95	21.18	20.33	21.51	21.87	3.19	4.41	3.57	4.74	5.11
	4H	20.47	21.61	20.87	21.96	22.35	3.12	4.27	3.52	4.62	5.00
	6H	20.81	21.86	21.22	22.23	22.62	3.05	4.10	3.47	4.47	4.87
	8H	20.89	21.89	21.32	22.28	22.68	3.01	4.01	3.44	4.40	4.80
	12H	20.91	21.86	21.34	22.24	22.67	2.97	3.92	3.40	4.31	4.74
4H	2H	18.20	19.35	18.60	19.70	20.08	4.13	5.27	4.53	5.62	6.01
	3H	19.82	20.75	20.23	21.15	21.55	4.08	5.01	4.49	5.42	5.82
	4H	20.34	21.17	20.77	21.59	22.03	4.00	4.84	4.44	5.25	5.70
	6H	20.71	21.43	21.17	21.88	22.34	3.94	4.66	4.40	5.10	5.57
	8H	20.81	21.48	21.28	21.93	22.40	3.89	4.56	4.36	5.00	5.47
	12H	20.85	21.44	21.33	21.92	22.40	3.84	4.44	4.33	4.92	5.39
8H	4H	20.21	20.88	20.68	21.33	21.80	5.02	5.69	5.49	6.14	6.61
	6H	20.56	21.11	21.07	21.61	22.09	4.94	5.49	5.44	5.98	6.46
	8H	20.66	21.15	21.18	21.67	22.16	4.89	5.38	5.41	5.89	6.39
	12H	20.70	21.14	21.22	21.63	22.20	4.85	5.28	5.36	5.78	6.35
12H	4H	20.17	20.76	20.65	21.24	21.72	5.10	5.69	5.59	6.18	6.65
	6H	20.50	21.00	21.02	21.51	22.00	5.00	5.50	5.52	6.01	6.50
	8H	20.62	21.05	21.13	21.55	22.12	4.97	5.41	5.49	5.90	6.47