

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: P1056512

Luminaire Tested: S125R3DR-H1090D935-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056512
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-H1090D935-X4F0-XX-UDD-F-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

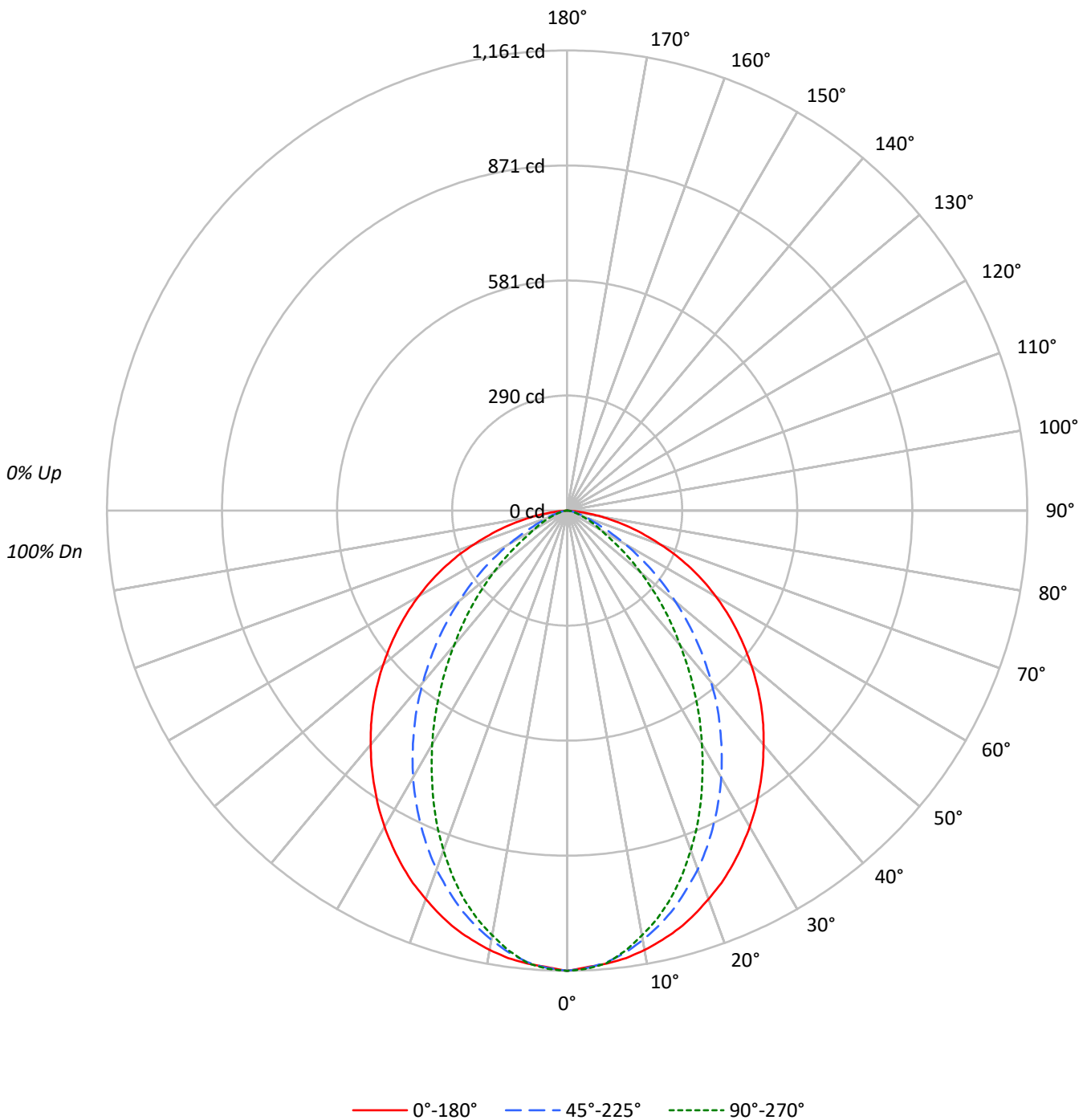
Lumens per Lamp: N/A
Luminaire Lumens: 2098.9 lumens
Efficiency: N/A
Efficacy: 67.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 30.9
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	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	102	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8210	8210	8210
5°	8142	8119	8134
10°	8081	7896	7812
15°	7988	7610	7405
20°	7847	7248	6860
25°	7700	6819	6240
30°	7522	6346	5556
35°	7322	5809	4835
40°	7115	5220	4088
45°	6912	4601	3386
50°	6669	3914	2660
55°	6414	3181	1935
60°	6126	2371	1383
65°	5756	1564	1079
70°	5200	1089	756
75°	4523	705	587
80°	3546	525	480
85°	1833	438	349

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6912 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.2	5.2
10°-20°	294.1	14.0
20°-30°	406.6	19.4
30°-40°	430.8	20.5
40°-50°	376.0	17.9
50°-60°	267.4	12.7
60°-70°	148.7	7.1
70°-80°	57.2	2.7
80°-90°	9.9	0.5
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°	808.8	38.5
0°-40°	1239.6	59.1
0°-60°	1883.1	89.7
0°-90°	2098.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2098.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1161	1161	1161	1161	1161	
5°	1147	1156	1144	1141	1146	109
15°	1091	1082	1040	1017	1012	307
25°	987	954	874	820	800	454
35°	848	790	673	591	560	531
45°	691	609	460	368	339	533
55°	520	417	258	178	157	465
65°	344	226	94	69	64	340
75°	166	64	26	22	22	176
85°	23	6	5	4	4	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1161.3	1161.3	1161.3	1161.3	1161.3
2.5°	1152.7	1164.5	1154.8	1155.9	1157.0
5°	1147.3	1155.9	1144.1	1140.8	1146.2
7.5°	1138.7	1145.1	1124.7	1117.2	1120.4
10°	1125.8	1127.9	1100.0	1089.2	1088.2
12.5°	1109.7	1106.4	1072.0	1054.8	1053.7
15°	1091.4	1081.7	1039.8	1017.2	1011.8
17.5°	1068.8	1053.7	1002.1	973.1	964.5
20°	1043.0	1022.6	963.4	925.8	911.8
22.5°	1017.2	989.2	920.4	873.1	858.1
25°	987.1	953.7	874.2	820.4	800.0
27.5°	954.8	915.0	826.9	764.5	739.8
30°	921.5	875.3	777.4	707.5	680.6
32.5°	886.0	833.3	725.8	649.5	621.5
35°	848.4	790.3	673.1	591.4	560.2
37.5°	810.7	746.2	621.5	534.4	502.1
40°	771.0	701.1	565.6	476.3	443.0
42.5°	732.2	654.8	512.9	421.5	391.4
45°	691.4	608.6	460.2	367.7	338.7
47.5°	649.5	560.2	407.5	317.2	288.2
50°	606.4	512.9	355.9	267.7	241.9
52.5°	563.4	465.6	307.5	220.4	197.8
55°	520.4	417.2	258.1	178.5	157.0
57.5°	477.4	369.9	211.8	139.8	120.4
60°	433.3	321.5	167.7	103.2	97.8
62.5°	389.2	274.2	130.1	84.9	80.6
65°	344.1	225.8	93.5	68.8	64.5
67.5°	298.9	181.7	67.7	52.7	49.5
70°	251.6	138.7	52.7	39.8	36.6
72.5°	206.4	100.0	37.6	29.0	28.0
75°	165.6	64.5	25.8	21.5	21.5
77.5°	124.7	38.7	18.3	16.1	16.1
80°	87.1	22.6	12.9	11.8	11.8
82.5°	52.7	11.8	8.6	7.5	7.5
85°	22.6	6.5	5.4	4.3	4.3
87.5°	4.3	2.2	2.2	2.2	2.2
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	18.48	19.92	18.84	20.23	20.55	11.11	12.56	11.48	12.87	13.19
	3H	20.03	21.32	20.41	21.65	22.01	11.68	12.97	12.06	13.29	13.66
	4H	20.56	21.76	20.96	22.11	22.49	11.80	13.00	12.20	13.35	13.73
	6H	20.89	22.00	21.31	22.37	22.76	11.87	12.97	12.28	13.34	13.74
	8H	20.98	22.03	21.40	22.42	22.82	11.87	12.92	12.30	13.31	13.72
	12H	21.00	22.01	21.43	22.39	22.82	11.86	12.87	12.29	13.25	13.68
4H	2H	18.37	19.57	18.77	19.92	20.30	11.68	12.88	12.08	13.23	13.61
	3H	20.04	21.03	20.45	21.43	21.83	12.35	13.34	12.76	13.74	14.14
	4H	20.59	21.47	21.02	21.89	22.33	12.51	13.39	12.94	13.81	14.25
	6H	20.98	21.74	21.44	22.19	22.65	12.62	13.38	13.08	13.83	14.29
	8H	21.09	21.80	21.55	22.24	22.71	12.63	13.34	13.10	13.79	14.26
	12H	21.13	21.77	21.62	22.25	22.72	12.63	13.27	13.12	13.75	14.22
8H	4H	20.49	21.20	20.96	21.65	22.12	12.78	13.49	13.24	13.94	14.41
	6H	20.88	21.46	21.38	21.96	22.44	12.91	13.50	13.41	13.99	14.47
	8H	20.99	21.51	21.50	22.02	22.51	12.94	13.46	13.46	13.98	14.47
	12H	21.05	21.51	21.56	22.01	22.57	12.96	13.42	13.47	13.92	14.49
12H	4H	20.45	21.09	20.94	21.57	22.04	12.79	13.43	13.28	13.91	14.38
	6H	20.82	21.35	21.34	21.86	22.35	12.92	13.45	13.44	13.96	14.45
	8H	20.95	21.42	21.47	21.91	22.48	12.98	13.44	13.49	13.94	14.51