

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: P1056379

Luminaire Tested: S125R3DR-S1090D940-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056379
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-S1090D940-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

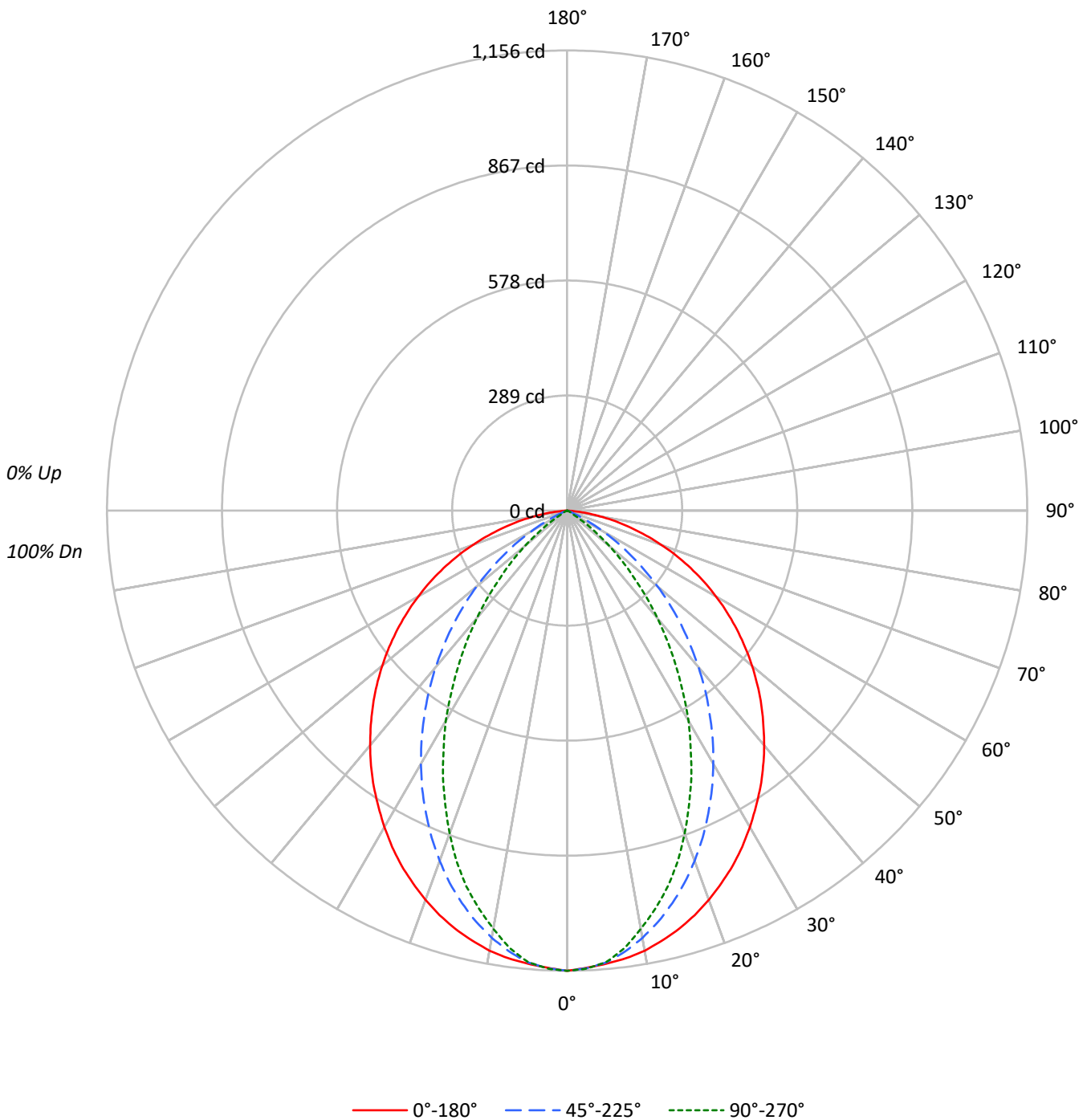
Lumens per Lamp: N/A
Luminaire Lumens: 1874.0 lumens
Efficiency: N/A
Efficacy: 54.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8174	8174	8174
5°	8108	8083	8075
10°	8061	7823	7658
15°	7959	7472	7154
20°	7828	7043	6492
25°	7678	6543	5757
30°	7493	5996	4976
35°	7308	5389	4114
40°	7107	4738	3257
45°	6896	4044	2360
50°	6667	3264	1525
55°	6411	2387	678
60°	6108	1475	195
65°	5731	537	115
70°	5188	190	48
75°	4507	63	30
80°	3452	45	0
85°	1582	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6896 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.4	5.7
10°-20°	288.4	15.4
20°-30°	390.1	20.8
30°-40°	400.8	21.4
40°-50°	332.0	17.7
50°-60°	213.2	11.4
60°-70°	103.0	5.5
70°-80°	34.8	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°	785.9	41.9
0°-40°	1186.6	63.3
0°-60°	1731.8	92.4
0°-90°	1874.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1874.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1156	1156	1156	1156	1156	
5°	1142	1152	1139	1132	1138	108
15°	1088	1074	1021	986	978	306
25°	984	936	839	763	738	453
35°	847	766	624	516	477	529
45°	690	576	404	280	236	532
55°	520	382	194	85	55	465
65°	343	189	32	9	7	339
75°	165	36	2	1	1	175
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°	1156.2	1156.2	1156.2	1156.2	1156.2
2.5°	1149.3	1158.5	1150.5	1149.3	1151.6
5°	1142.5	1151.6	1139.0	1132.2	1137.9
7.5°	1134.4	1139.0	1117.3	1105.8	1108.1
10°	1123.0	1121.8	1089.8	1070.3	1066.8
12.5°	1105.8	1100.1	1057.7	1030.2	1024.4
15°	1087.5	1073.7	1021.0	985.5	977.5
17.5°	1065.7	1043.9	980.9	935.1	923.6
20°	1040.5	1010.7	936.2	880.1	862.9
22.5°	1013.0	975.2	889.2	822.8	799.8
25°	984.3	936.2	838.8	763.2	738.0
27.5°	952.2	896.1	788.4	702.4	671.5
30°	917.9	853.7	734.5	640.6	609.6
32.5°	882.3	811.3	680.7	578.7	540.9
35°	846.8	765.5	624.5	515.7	476.7
37.5°	809.0	719.6	569.5	456.1	413.7
40°	770.1	672.6	513.4	394.2	352.9
42.5°	729.9	624.5	457.2	335.8	293.4
45°	689.8	576.4	404.5	279.6	236.1
47.5°	648.6	527.1	349.5	224.6	186.8
50°	606.2	479.0	296.8	175.3	138.7
52.5°	563.8	429.7	242.9	127.2	94.0
55°	520.2	381.6	193.7	84.8	55.0
57.5°	476.7	332.3	147.8	47.0	20.6
60°	432.0	285.3	104.3	16.0	13.8
62.5°	388.5	234.9	65.3	12.6	10.3
65°	342.6	189.1	32.1	9.2	6.9
67.5°	297.9	145.5	13.8	5.7	3.4
70°	251.0	105.4	9.2	3.4	2.3
72.5°	207.4	67.6	5.7	2.3	1.1
75°	165.0	35.5	2.3	1.1	1.1
77.5°	123.8	14.9	1.1	1.1	1.1
80°	84.8	6.9	1.1	1.1	0.0
82.5°	50.4	2.3	1.1	1.1	0.0
85°	19.5	0.0	0.0	0.0	0.0
87.5°	1.1	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	18.37	19.75	18.73	20.07	20.38	3.23	4.62	3.60	4.93	5.25
	3H	19.92	21.15	20.30	21.47	21.84	3.15	4.38	3.53	4.71	5.08
	4H	20.44	21.58	20.84	21.93	22.32	3.09	4.23	3.49	4.58	4.96
	6H	20.78	21.83	21.19	22.20	22.59	3.02	4.07	3.43	4.44	4.83
	8H	20.86	21.86	21.29	22.25	22.65	2.98	3.97	3.41	4.36	4.77
	12H	20.88	21.83	21.31	22.21	22.64	2.94	3.89	3.37	4.27	4.70
4H	2H	18.17	19.32	18.57	19.67	20.05	4.10	5.24	4.50	5.59	5.97
	3H	19.78	20.72	20.20	21.12	21.52	4.05	4.98	4.46	5.38	5.79
	4H	20.31	21.14	20.74	21.56	22.00	3.97	4.80	4.40	5.22	5.66
	6H	20.68	21.40	21.14	21.85	22.31	3.90	4.62	4.36	5.07	5.53
	8H	20.78	21.45	21.25	21.90	22.37	3.85	4.52	4.32	4.97	5.44
	12H	20.82	21.41	21.30	21.89	22.37	3.81	4.40	4.29	4.88	5.36
8H	4H	20.18	20.85	20.65	21.30	21.77	4.99	5.66	5.46	6.11	6.58
	6H	20.54	21.08	21.04	21.58	22.06	4.91	5.45	5.41	5.95	6.43
	8H	20.63	21.12	21.15	21.64	22.13	4.85	5.34	5.37	5.86	6.35
	12H	20.67	21.11	21.19	21.60	22.17	4.81	5.25	5.32	5.74	6.31
12H	4H	20.14	20.73	20.62	21.21	21.69	5.07	5.66	5.55	6.14	6.62
	6H	20.47	20.97	21.00	21.48	21.97	4.97	5.46	5.49	5.98	6.47
	8H	20.59	21.02	21.10	21.52	22.09	4.93	5.37	5.45	5.86	6.43