

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: P1060650

Luminaire Tested: S124RDRP-H1020D840-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060650
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-H1020D840-X4F0-XX-UDD-WVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

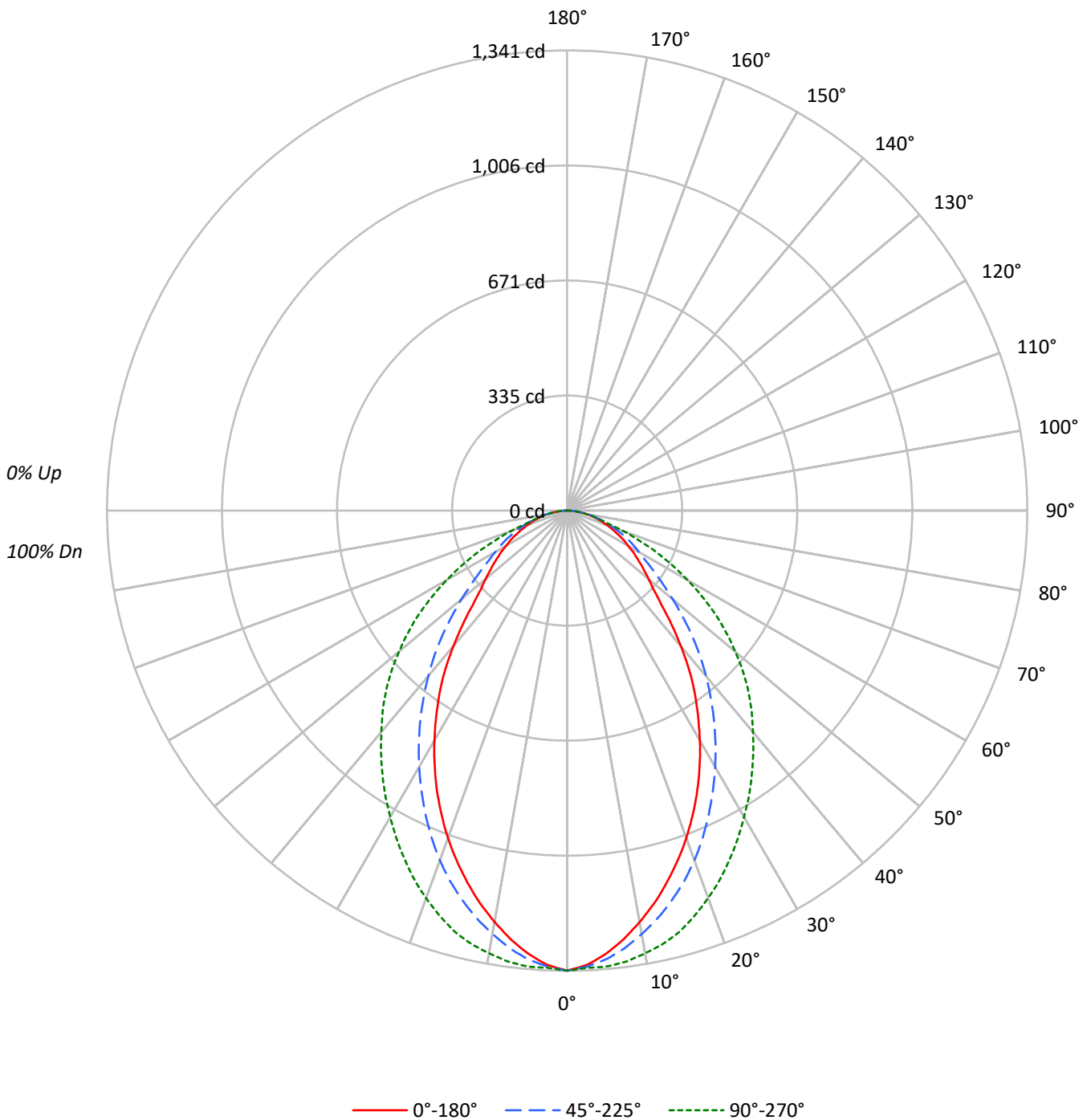
Lumens per Lamp: N/A
Luminaire Lumens: 2460.2 lumens
Efficiency: N/A
Efficacy: 78.9 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87					87			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75					75			
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65					65			
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57					57			
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50					50			
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45					45			
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40					40			
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37					37			
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33					33			
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31					31			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11545	11545	11545
5°	11210	11344	11528
10°	10644	10955	11454
15°	10006	10493	11318
20°	9307	9938	11014
25°	8534	9278	10653
30°	7692	8577	10253
35°	6810	7845	9866
40°	5788	7082	9469
45°	4740	6257	9103
50°	4149	5372	8567
55°	3812	4632	7927
60°	3536	4168	6989
65°	3313	3916	5850
70°	3107	3585	4391
75°	2921	3277	3197
80°	2708	3000	2708
85°	2460	2934	2342

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9103 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.9	5.0
10°-20°	333.4	13.6
20°-30°	455.7	18.5
30°-40°	478.9	19.5
40°-50°	415.6	16.9
50°-60°	313.5	12.7
60°-70°	203.2	8.3
70°-80°	104.3	4.2
80°-90°	31.6	1.3
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°	913.0	37.1
0°-40°	1391.9	56.6
0°-60°	2121.0	86.2
0°-90°	2460.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2460.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1341	1341	1341	1341	1341	
5°	1297	1315	1312	1323	1334	121
15°	1122	1150	1177	1230	1270	315
25°	898	930	976	1051	1121	412
35°	648	683	746	846	938	403
45°	389	426	514	642	748	306
55°	254	261	308	438	528	229
65°	163	166	192	233	287	162
75°	88	98	98	100	96	93
85°	25	31	30	28	24	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1340.7	1340.7	1340.7	1340.7	1340.7
2.5°	1325.3	1341.9	1330.1	1332.4	1333.6
5°	1296.8	1314.6	1312.3	1322.9	1333.6
7.5°	1260.1	1281.4	1286.2	1307.5	1325.3
10°	1217.3	1241.1	1252.9	1287.4	1309.9
12.5°	1172.3	1196.0	1217.3	1261.3	1293.3
15°	1122.4	1149.7	1177.0	1230.4	1269.6
17.5°	1070.2	1098.7	1133.1	1191.2	1237.5
20°	1015.6	1044.1	1084.5	1147.3	1201.9
22.5°	957.5	989.5	1032.3	1099.9	1164.0
25°	898.2	930.2	976.5	1051.2	1121.2
27.5°	836.5	869.7	919.5	1002.6	1077.3
30°	773.6	809.2	862.6	950.4	1031.1
32.5°	709.5	747.5	804.4	898.2	986.0
35°	647.8	683.4	746.3	846.0	938.5
37.5°	583.8	619.4	687.0	795.0	891.1
40°	514.9	554.1	630.0	741.6	842.4
42.5°	450.9	490.0	571.9	690.5	796.1
45°	389.2	426.0	513.8	641.9	747.5
47.5°	341.7	367.8	455.6	594.4	695.3
50°	309.7	321.5	401.0	542.2	639.5
52.5°	281.2	290.7	351.2	490.0	584.9
55°	253.9	261.0	308.5	437.8	528.0
57.5°	230.2	233.7	270.5	385.6	466.3
60°	205.3	210.0	242.0	332.2	405.8
62.5°	185.1	187.5	217.1	281.2	345.3
65°	162.6	166.1	192.2	232.6	287.1
67.5°	142.4	148.3	166.1	189.8	226.6
70°	123.4	131.7	142.4	154.2	174.4
72.5°	105.6	115.1	121.0	125.8	122.2
75°	87.8	98.5	98.5	99.7	96.1
77.5°	71.2	80.7	79.5	78.3	73.6
80°	54.6	62.9	60.5	59.3	54.6
82.5°	40.3	46.3	43.9	42.7	36.8
85°	24.9	30.8	29.7	28.5	23.7
87.5°	11.9	17.8	16.6	15.4	10.7
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	15.00	16.49	15.37	16.80	17.12	18.74	20.23	19.10	20.54	20.85
	3H	16.67	18.00	17.05	18.33	18.69	19.87	21.20	20.24	21.53	21.89
	4H	17.34	18.58	17.74	18.93	19.31	20.16	21.41	20.56	21.76	22.14
	6H	17.84	19.00	18.26	19.36	19.76	20.36	21.51	20.77	21.88	22.27
	8H	18.02	19.12	18.45	19.51	19.91	20.42	21.51	20.84	21.90	22.31
	12H	18.14	19.19	18.57	19.57	20.00	20.45	21.50	20.88	21.88	22.31
4H	2H	15.79	17.04	16.19	17.39	17.77	18.91	20.15	19.31	20.50	20.88
	3H	17.67	18.70	18.08	19.10	19.50	20.24	21.27	20.65	21.67	22.07
	4H	18.47	19.40	18.90	19.82	20.26	20.65	21.58	21.09	22.00	22.44
	6H	19.11	19.92	19.57	20.37	20.83	20.97	21.78	21.43	22.23	22.69
	8H	19.34	20.09	19.80	20.54	21.01	21.07	21.83	21.53	22.27	22.74
	12H	19.50	20.18	19.98	20.66	21.13	21.14	21.82	21.62	22.30	22.77
8H	4H	18.82	19.58	19.28	20.02	20.49	20.79	21.54	21.25	21.99	22.46
	6H	19.61	20.23	20.11	20.73	21.20	21.21	21.83	21.70	22.32	22.80
	8H	19.93	20.49	20.44	21.00	21.49	21.36	21.92	21.88	22.43	22.92
	12H	20.19	20.69	20.70	21.18	21.74	21.50	22.00	22.01	22.49	23.06
12H	4H	18.85	19.52	19.33	20.00	20.47	20.79	21.47	21.27	21.95	22.42
	6H	19.67	20.23	20.18	20.74	21.23	21.23	21.79	21.74	22.30	22.79
	8H	20.06	20.55	20.57	21.04	21.61	21.44	21.93	21.95	22.42	22.99