

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060738

Luminaire Tested: S124RDR-H1195D850-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060738
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H1195D850-X4F0-XX-UDD-WVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

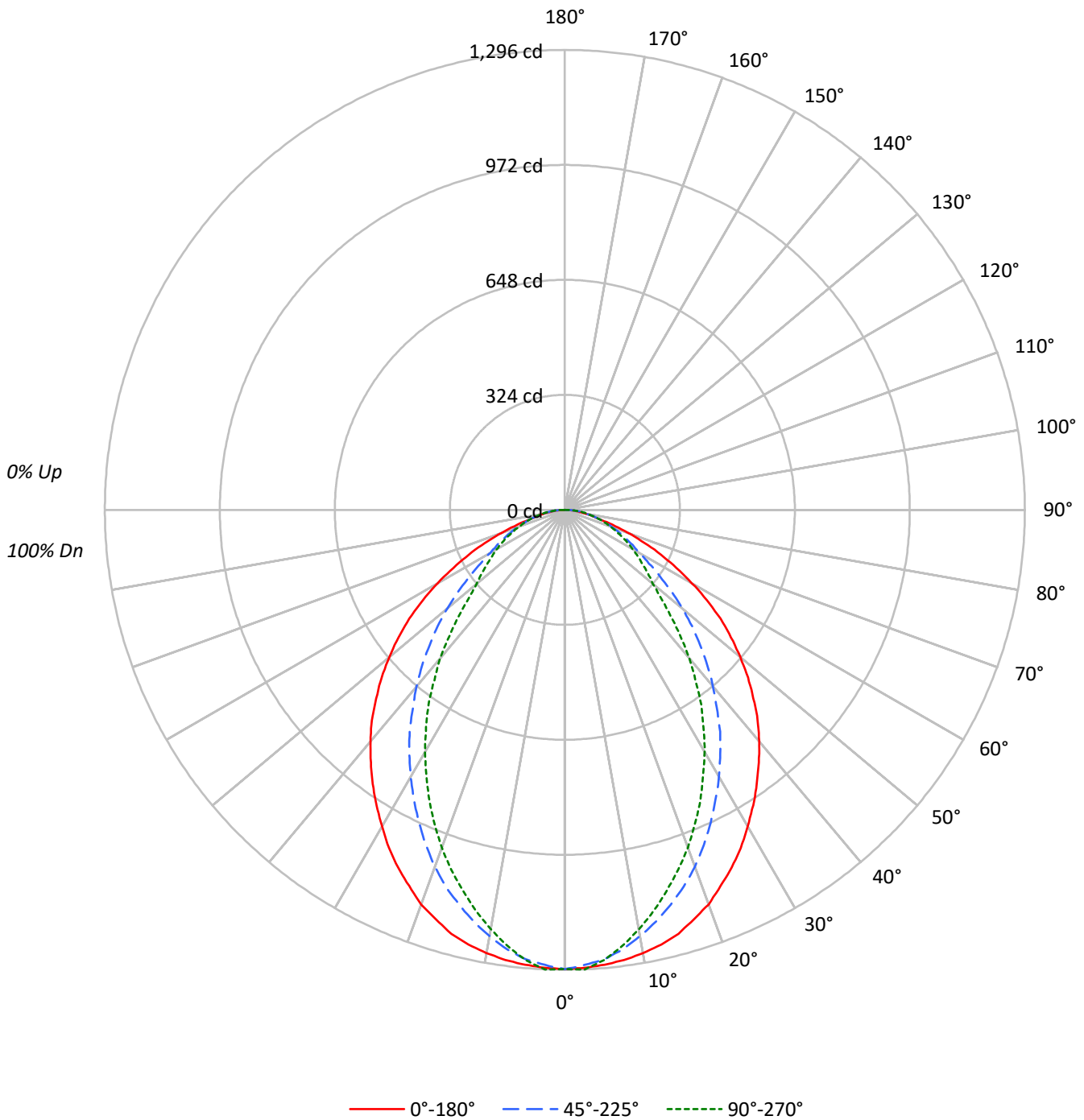
Lumens per Lamp: N/A
Luminaire Lumens: 2496.0 lumens
Efficiency: N/A
Efficacy: 68.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
Input Voltage (V): 120
Input Current (Ain): 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										
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	0																	
RCR																																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																				
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86																				
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76	74																				
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64																				
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56																				
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																				
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44																				
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40																				
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36																				
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33																				
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11146	11146	11146
5°	11123	10992	11005
10°	11093	10667	10494
15°	11024	10266	9899
20°	10844	9813	9283
25°	10565	9235	8584
30°	10240	8636	7834
35°	9914	8011	7036
40°	9575	7301	6139
45°	9151	6558	5131
50°	8639	5787	4340
55°	8038	4909	4019
60°	7125	4166	3799
65°	6074	3843	3594
70°	4748	3563	3409
75°	3237	3290	3290
80°	2792	3094	3169
85°	2401	3004	3310

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9151 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.4	4.8
10°-20°	327.1	13.1
20°-30°	454.1	18.2
30°-40°	486.7	19.5
40°-50°	431.2	17.3
50°-60°	324.9	13.0
60°-70°	210.4	8.4
70°-80°	108.0	4.3
80°-90°	33.1	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°	901.6	36.1
0°-40°	1388.3	55.6
0°-60°	2144.4	85.9
0°-90°	2496.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2496.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1294	1294	1294	1294	1294	
5°	1287	1288	1272	1273	1273	122
15°	1237	1209	1152	1123	1110	348
25°	1112	1053	972	920	904	512
35°	943	858	762	694	669	590
45°	751	654	538	455	421	579
55°	535	446	327	275	268	476
65°	298	240	189	178	176	296
75°	97	102	99	99	99	115
85°	24	26	30	34	34	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1294.4	1294.4	1294.4	1294.4	1294.4
2.5°	1291.4	1296.0	1283.8	1292.9	1296.0
5°	1286.8	1288.4	1271.6	1273.1	1273.1
7.5°	1279.2	1276.2	1248.8	1241.2	1239.7
10°	1268.6	1259.5	1219.9	1204.7	1200.1
12.5°	1254.9	1238.2	1188.0	1166.7	1157.5
15°	1236.6	1209.3	1151.5	1122.6	1110.4
17.5°	1209.3	1174.3	1113.4	1076.9	1063.2
20°	1183.4	1136.2	1070.8	1025.2	1013.0
22.5°	1146.9	1096.7	1022.2	973.5	958.3
25°	1111.9	1052.6	972.0	920.3	903.5
27.5°	1073.9	1007.0	920.3	865.5	844.2
30°	1029.8	958.3	868.5	810.7	787.9
32.5°	987.2	911.1	815.3	751.4	727.1
35°	943.1	857.9	762.1	693.6	669.3
37.5°	897.4	807.7	702.7	635.8	603.9
40°	851.8	757.5	649.5	573.4	546.1
42.5°	804.6	705.8	594.7	515.6	480.7
45°	751.4	654.1	538.5	454.8	421.3
47.5°	699.7	603.9	486.7	395.5	365.1
50°	644.9	550.6	432.0	343.8	324.0
52.5°	590.2	495.9	378.7	304.2	295.1
55°	535.4	445.7	327.0	275.3	267.7
57.5°	474.6	394.0	281.4	249.5	243.4
60°	413.7	337.7	241.9	225.1	220.6
62.5°	354.4	289.0	214.5	200.8	197.7
65°	298.1	240.3	188.6	178.0	176.4
67.5°	243.4	197.7	164.3	158.2	155.1
70°	188.6	158.2	141.5	138.4	135.4
72.5°	139.9	127.8	120.2	118.6	117.1
75°	97.3	101.9	98.9	98.9	98.9
77.5°	77.6	79.1	80.6	82.1	80.6
80°	56.3	60.8	62.4	65.4	63.9
82.5°	39.5	42.6	47.2	48.7	50.2
85°	24.3	25.9	30.4	33.5	33.5
87.5°	10.6	12.2	15.2	18.3	19.8
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	18.82	20.32	19.18	20.63	20.94	15.38	16.88	15.75	17.19	17.51
	3H	20.02	21.37	20.40	21.69	22.06	17.08	18.42	17.45	18.75	19.11
	4H	20.33	21.59	20.73	21.94	22.32	17.75	19.01	18.15	19.36	19.74
	6H	20.53	21.69	20.94	22.06	22.45	18.30	19.47	18.72	19.83	20.23
	8H	20.59	21.70	21.02	22.09	22.49	18.52	19.63	18.95	20.02	20.42
	12H	20.62	21.68	21.05	22.06	22.49	18.69	19.75	19.12	20.14	20.57
4H	2H	18.96	20.22	19.36	20.57	20.95	16.04	17.30	16.44	17.65	18.03
	3H	20.36	21.41	20.77	21.81	22.21	17.95	19.00	18.36	19.40	19.80
	4H	20.79	21.73	21.22	22.14	22.58	18.75	19.69	19.19	20.11	20.55
	6H	21.11	21.93	21.57	22.37	22.83	19.44	20.26	19.90	20.70	21.16
	8H	21.21	21.97	21.67	22.42	22.89	19.71	20.48	20.18	20.92	21.39
	12H	21.28	21.96	21.76	22.44	22.91	19.94	20.63	20.43	21.11	21.58
8H	4H	20.91	21.68	21.38	22.12	22.59	19.07	19.83	19.53	20.28	20.75
	6H	21.34	21.97	21.83	22.46	22.94	19.90	20.53	20.40	21.02	21.50
	8H	21.49	22.06	22.01	22.57	23.06	20.26	20.83	20.78	21.34	21.83
	12H	21.62	22.12	22.13	22.61	23.18	20.60	21.10	21.11	21.59	22.16
12H	4H	20.92	21.60	21.40	22.08	22.55	19.10	19.78	19.58	20.26	20.73
	6H	21.36	21.93	21.87	22.44	22.93	19.96	20.53	20.47	21.04	21.53
	8H	21.57	22.07	22.08	22.56	23.13	20.39	20.89	20.90	21.38	21.95