

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: P1033767

Luminaire Tested: S124DIW-B795D470UB27-4F0-XX-W2A-D1

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033767
REPORT IS A COMBINATION OF REPORTS P998141 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B795D470UB27-4F0-XX-W2A-D1
Description: Define 4 Direct/Indirect Wall Mount with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

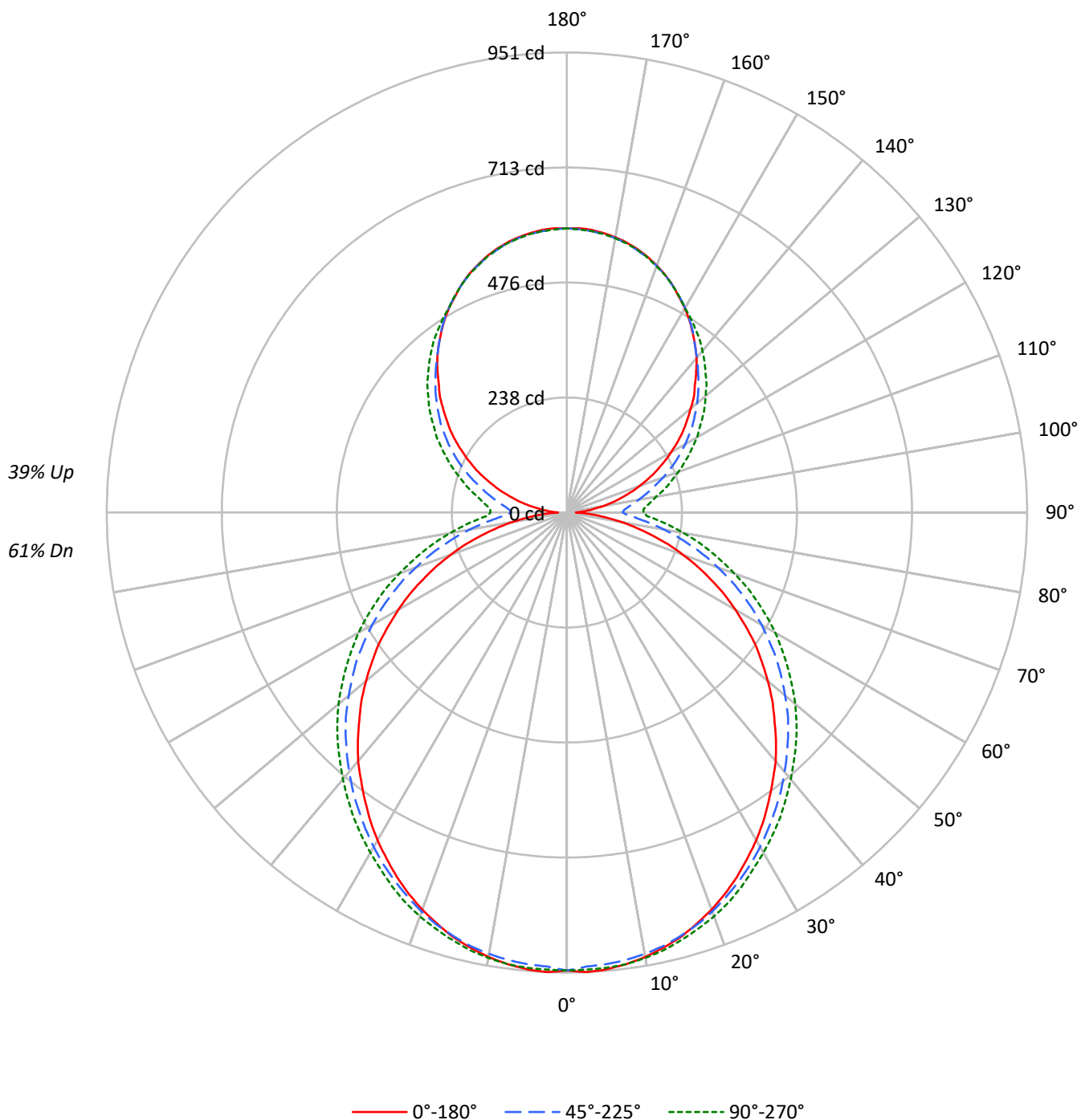
Lumens per Lamp: N/A
Luminaire Lumens: 4859.0 lumens
Efficiency: N/A
Efficacy: 99.0 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 49.1
Input Voltage (V):
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67
1	99	94	90	86	92	88	84	81	77	74	71	67	64	62	57	55	54
2	90	82	75	69	84	76	70	65	67	62	58	58	54	51	49	47	44
3	82	71	63	57	76	67	60	54	58	53	48	51	46	43	43	40	37
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	38	35	32
5	68	56	47	41	63	52	45	39	46	40	35	40	35	31	34	31	27
6	63	50	41	35	58	47	39	34	41	35	30	36	31	27	31	27	24
7	58	45	37	31	54	42	35	29	37	31	27	33	28	24	28	24	21
8	54	41	33	27	50	39	31	26	34	28	24	30	25	21	26	22	19
9	50	37	30	24	47	35	28	23	31	25	21	28	23	19	24	20	17
10	47	34	27	22	44	32	25	21	29	23	19	25	21	17	22	18	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7721	7721	7721
5°	7742	7519	7533
10°	7692	7371	7350
15°	7619	7205	7144
20°	7513	7025	6944
25°	7393	6827	6729
30°	7263	6630	6508
35°	7116	6428	6313
40°	6997	6236	6110
45°	6824	6054	5931
50°	6674	5848	5741
55°	6520	5650	5523
60°	6281	5403	5319
65°	6020	5136	5071
70°	5700	4833	4786
75°	5256	4494	4514
80°	4754	4149	4230
85°	4090	3803	3999

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6824 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.7	1.8
10°-20°	257.0	5.3
20°-30°	388.6	8.0
30°-40°	470.2	9.7
40°-50°	497.1	10.2
50°-60°	467.8	9.6
60°-70°	388.2	8.0
70°-80°	272.4	5.6
80°-90°	154.8	3.2
90°-100°	129.7	2.7
100°-110°	182.4	3.8
110°-120°	240.2	4.9
120°-130°	282.5	5.8
130°-140°	299.6	6.2
140°-150°	285.8	5.9
150°-160°	238.6	4.9
160°-170°	158.7	3.3
170°-180°	55.6	1.1
0°-30°	735.4	15.1
0°-40°	1205.6	24.8
0°-60°	2170.4	44.7
0°-90°	2985.8	61.4
90°-120°	552.3	11.4
90°-150°	1420.3	29.2
90°-180°	1873.0	38.5
0°-180°	4859.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	947	947	947	947	947	
5°	948	945	937	946	945	90
15°	909	910	906	916	915	256
25°	831	838	841	852	854	383
35°	727	740	751	766	769	455
45°	606	627	647	665	670	469
55°	475	497	529	550	557	423
65°	329	363	399	425	434	326
75°	182	222	266	296	305	194
85°	56	101	148	180	191	59
90°	18	66	115	148	158	14
95°	41	80	127	157	166	41
105°	115	137	178	206	216	123
115°	204	214	247	270	277	202
125°	293	292	318	337	342	261
135°	374	377	384	400	405	290
145°	453	454	454	460	463	284
155°	518	518	517	519	517	238
165°	564	562	562	564	562	159
175°	586	584	584	587	584	56
180°	587	587	587	587	587	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	946.8	946.8	946.8	946.8	946.8
2.5°	951.0	947.9	939.4	946.8	945.7
5°	947.9	944.7	937.2	945.7	944.7
7.5°	941.5	939.4	933.0	942.6	941.5
10°	933.0	931.9	926.6	936.2	935.1
12.5°	921.3	921.3	918.2	926.6	926.6
15°	908.6	909.7	906.5	916.0	915.0
17.5°	891.7	894.8	893.8	903.3	902.3
20°	873.6	876.8	877.9	888.5	888.5
22.5°	853.5	857.7	859.9	870.5	872.6
25°	831.2	837.6	840.8	852.4	853.5
27.5°	806.8	816.4	820.6	831.2	832.3
30°	782.5	790.9	798.4	810.0	812.1
32.5°	755.9	766.6	775.0	788.8	790.9
35°	727.3	740.0	750.6	765.5	768.7
37.5°	698.7	713.5	726.3	741.1	744.3
40°	671.1	684.9	699.8	715.7	719.9
42.5°	639.3	655.2	673.3	691.3	694.5
45°	606.5	626.6	646.7	664.8	670.1
47.5°	575.7	595.9	619.2	637.2	643.6
50°	541.8	565.1	588.4	609.6	616.0
52.5°	507.9	531.2	558.7	579.9	586.3
55°	475.0	497.3	529.1	550.3	556.6
57.5°	437.9	465.4	496.2	521.6	526.9
60°	401.8	429.4	464.4	488.8	497.3
62.5°	366.8	397.6	432.6	457.0	465.4
65°	328.7	362.6	398.6	425.2	433.6
67.5°	292.6	328.7	366.8	393.3	401.8
70°	255.5	291.6	331.9	360.5	367.9
72.5°	219.5	256.6	300.0	327.6	336.1
75°	182.4	221.6	266.1	295.8	305.3
77.5°	147.4	188.7	235.4	265.1	275.7
80°	115.6	158.0	204.6	236.4	244.9
82.5°	83.8	128.3	174.9	207.8	217.3
85°	56.2	100.7	148.4	180.2	190.8
87.5°	35.0	78.5	125.1	155.9	165.4
90°	18.4	65.8	115.0	148.4	157.8
92.5°	27.7	70.7	118.6	149.7	158.6
95°	41.1	80.1	126.7	156.8	166.3
97.5°	56.3	90.7	137.8	167.2	176.7
100°	75.3	104.6	150.1	179.6	187.0
102.5°	96.2	119.9	163.9	192.7	201.7
105°	115.3	137.0	178.1	206.0	215.8
107.5°	137.6	156.2	193.7	222.0	229.0
110°	159.3	175.0	211.7	235.2	245.0

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	181.8	194.5	228.6	252.0	260.4
115°	204.5	214.0	247.0	269.9	276.8
117.5°	226.7	233.0	264.4	285.3	292.4
120°	247.9	252.9	282.2	301.2	310.6
122.5°	271.0	271.5	299.6	319.5	324.7
125°	292.7	291.7	317.7	336.9	342.4
127.5°	313.1	313.5	333.8	352.0	358.9
130°	333.9	334.2	351.2	369.4	373.8
132.5°	356.2	356.0	368.2	385.4	391.3
135°	374.1	376.9	384.3	400.4	405.4
137.5°	395.5	395.9	401.0	415.5	421.3
140°	416.8	416.8	417.8	431.1	435.9
142.5°	435.4	436.3	434.7	446.4	450.6
145°	453.1	453.8	454.3	460.2	463.1
147.5°	471.3	472.4	472.0	472.6	476.4
150°	487.6	488.3	488.3	488.3	487.9
152.5°	502.0	502.9	503.3	504.7	503.3
155°	517.9	517.9	517.4	519.2	517.4
157.5°	531.5	530.6	530.6	532.0	530.6
160°	543.3	542.9	542.4	543.8	541.5
162.5°	554.2	552.8	552.4	555.1	552.8
165°	563.8	562.4	561.5	564.2	562.4
167.5°	571.5	569.7	569.7	572.4	569.7
170°	577.8	575.6	576.0	578.7	575.6
172.5°	582.4	580.6	580.6	583.7	580.6
175°	586.5	584.2	583.7	586.9	583.7
177.5°	588.3	586.0	586.0	589.2	585.6
180°	587.4	587.4	587.4	587.4	587.4

(END OF REPORT)