

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: P998778

Luminaire Tested: SA2XXDIP-B675D330UB40-4F0-XX-W2A-D1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998778
REPORT IS A COMBINATION OF REPORTS P984524 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B675D330UB40-4F0-XX-W2A-D1
Description: Define 2 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

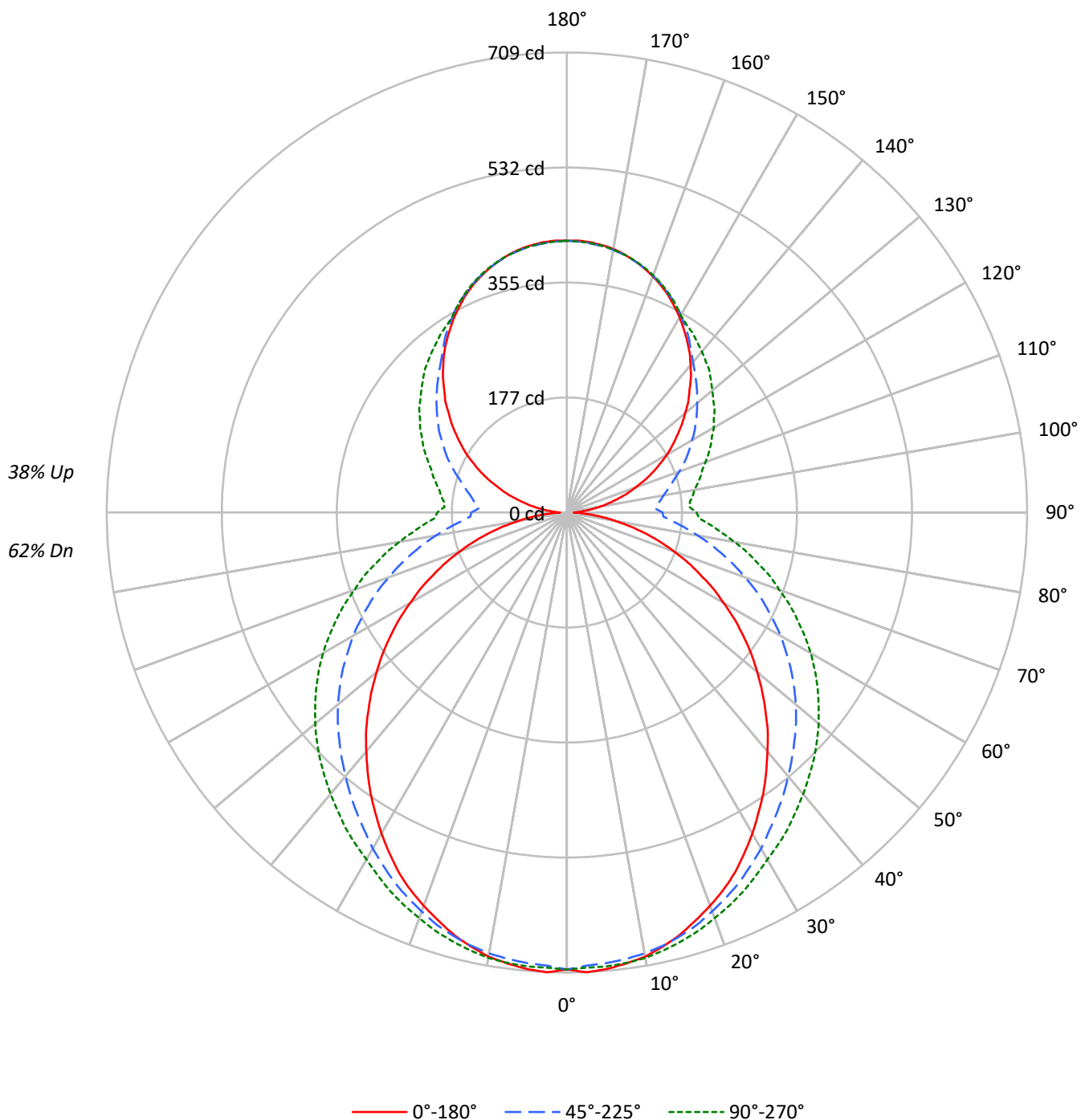
Lumens per Lamp: N/A
Luminaire Lumens: 3859.0 lumens
Efficiency: N/A
Efficacy: 85.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 45.2
Input Voltage (V):
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				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	93	89	85	92	87	83	80	76	73	70	66	63	61	56	55	53
2	89	81	73	68	83	75	69	64	66	61	57	57	53	50	49	46	43
3	81	70	62	55	75	66	58	53	57	52	47	50	45	41	42	39	36
4	74	62	53	46	68	58	50	44	51	44	39	44	39	35	38	34	30
5	67	55	46	40	63	51	44	38	45	39	34	39	34	30	34	30	26
6	62	49	40	34	58	46	38	32	41	34	29	35	30	26	30	26	23
7	57	44	36	30	53	42	34	28	37	30	26	32	27	23	28	23	20
8	53	40	32	26	50	38	30	25	33	27	23	29	24	20	25	21	18
9	50	37	29	23	46	35	27	22	31	25	20	27	22	18	23	19	16
10	46	34	26	21	43	32	25	20	28	22	18	25	20	16	22	18	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11147	11147	11147
5°	11197	10672	10612
10°	11122	10301	10152
15°	10965	9919	9680
20°	10767	9518	9232
25°	10573	9134	8827
30°	10297	8743	8425
35°	10020	8366	8130
40°	9729	8041	7836
45°	9450	7745	7580
50°	9152	7473	7328
55°	8839	7184	7072
60°	8454	6883	6801
65°	8055	6537	6491
70°	7600	6165	6156
75°	7021	5793	5842
80°	6108	5405	5514
85°	5184	5040	5232

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9450 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.8	1.7
10°-20°	191.5	5.0
20°-30°	290.1	7.5
30°-40°	353.3	9.2
40°-50°	380.1	9.8
50°-60°	369.1	9.6
60°-70°	322.4	8.4
70°-80°	248.1	6.4
80°-90°	167.4	4.3
90°-100°	140.5	3.6
100°-110°	166.1	4.3
110°-120°	196.2	5.1
120°-130°	216.1	5.6
130°-140°	220.9	5.7
140°-150°	206.2	5.3
150°-160°	171.1	4.4
160°-170°	113.5	2.9
170°-180°	39.7	1.0
0°-30°	548.3	14.2
0°-40°	901.6	23.4
0°-60°	1650.8	42.8
0°-90°	2388.6	61.9
90°-120°	502.8	13.0
90°-150°	1146.1	29.7
90°-180°	1470.0	38.1
0°-180°	3859.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	704	704	704	704	704	
5°	706	703	697	703	702	67
15°	674	676	676	685	684	190
25°	612	620	629	641	644	282
35°	528	545	564	587	594	330
45°	433	460	496	528	538	334
55°	332	368	422	458	472	297
65°	227	277	337	379	392	225
75°	126	183	248	292	305	133
85°	37	100	165	208	222	39
90°	11	74	147	187	200	8
95°	27	78	140	179	190	27
105°	81	112	166	202	213	86
115°	146	159	204	234	244	144
125°	208	211	242	269	278	186
135°	267	271	282	303	310	207
145°	323	326	328	334	338	202
155°	369	370	371	373	372	170
165°	402	402	402	404	402	113
175°	418	417	416	419	417	40
180°	419	419	419	419	419	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	704.2	704.2	704.2	704.2	704.2
2.5°	709.3	706.2	699.1	704.2	702.2
5°	706.2	703.2	697.1	703.2	702.2
7.5°	701.1	699.1	694.0	701.1	700.1
10°	695.0	693.0	689.9	698.1	697.1
12.5°	684.8	685.8	683.8	692.0	690.9
15°	673.6	675.6	675.6	684.8	683.8
17.5°	659.3	663.4	666.4	675.6	675.6
20°	645.0	650.1	654.2	665.4	665.4
22.5°	629.7	635.8	641.9	653.2	655.2
25°	612.4	619.5	628.7	640.9	644.0
27.5°	591.9	603.2	613.4	628.7	630.7
30°	571.5	584.8	598.1	614.4	617.5
32.5°	549.1	564.4	580.7	600.1	606.2
35°	527.6	545.0	564.4	586.8	594.0
37.5°	504.2	523.6	548.1	572.5	579.7
40°	480.7	503.1	530.7	557.2	566.4
42.5°	458.2	480.7	513.4	543.0	552.1
45°	432.7	460.3	496.0	527.6	537.8
47.5°	408.2	437.8	478.7	511.3	522.5
50°	382.7	414.4	460.3	495.0	506.2
52.5°	358.2	391.9	440.9	476.6	488.9
55°	331.7	368.4	421.5	458.2	471.5
57.5°	306.2	347.0	400.1	439.9	453.1
60°	278.6	322.5	380.7	419.5	433.7
62.5°	254.1	300.1	358.2	400.1	413.3
65°	226.6	276.6	336.8	378.6	391.9
67.5°	202.1	254.1	315.4	357.2	371.5
70°	175.5	228.6	291.9	335.8	348.0
72.5°	151.0	206.2	270.5	313.3	328.6
75°	125.5	182.7	248.0	291.9	305.2
77.5°	101.0	160.2	226.6	270.5	284.7
80°	76.5	138.8	205.1	248.0	262.3
82.5°	56.1	117.4	184.7	227.6	240.9
85°	36.7	100.0	165.3	208.2	222.5
87.5°	22.5	83.7	149.0	190.8	204.1
90°	10.6	74.0	147.1	187.2	199.8
92.5°	17.0	73.9	136.5	176.6	188.9
95°	26.6	78.0	140.0	178.7	190.3
97.5°	37.8	84.9	145.5	183.3	195.5
100°	52.0	92.6	150.9	188.6	199.4
102.5°	65.8	101.6	158.2	195.3	206.2
105°	81.1	111.7	165.5	202.0	213.2
107.5°	97.3	123.2	174.2	209.3	218.8
110°	111.9	134.4	184.4	217.1	227.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	128.8	147.3	193.9	225.5	235.9
115°	145.5	158.8	204.0	234.3	244.5
117.5°	161.1	172.0	213.1	242.7	251.8
120°	177.7	184.5	222.6	251.1	261.3
122.5°	192.9	197.4	233.3	259.9	268.4
125°	207.7	210.9	242.5	269.0	277.8
127.5°	223.2	226.1	252.3	276.4	284.5
130°	237.7	241.3	262.1	285.8	292.6
132.5°	254.0	256.5	272.2	293.9	301.0
135°	267.1	271.0	281.9	303.0	310.1
137.5°	282.7	285.8	291.6	310.7	316.5
140°	296.4	298.6	302.4	318.8	323.5
142.5°	310.6	312.8	313.8	326.4	330.1
145°	323.0	325.5	327.6	334.1	337.7
147.5°	335.0	338.2	339.6	341.3	343.0
150°	347.4	349.5	350.9	352.0	350.9
152.5°	358.3	360.5	362.2	363.6	362.2
155°	369.3	370.4	371.4	373.2	372.1
157.5°	378.8	379.5	380.3	382.7	381.0
160°	387.3	388.0	388.4	390.5	389.1
162.5°	395.1	395.1	395.4	397.9	396.2
165°	401.8	401.5	401.5	403.9	402.2
167.5°	407.8	406.8	406.8	409.2	407.5
170°	412.4	411.4	411.0	413.5	411.4
172.5°	415.6	414.5	414.2	416.7	414.5
175°	418.1	417.0	416.3	418.8	416.7
177.5°	419.5	418.4	417.7	419.8	417.7
180°	418.8	418.8	418.8	418.8	418.8

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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	14.60	15.64	15.43	16.51	17.59	17.67	18.72	18.51	19.58	20.67
	3H	16.07	17.02	16.91	17.89	19.00	20.27	21.22	21.12	22.10	23.21
	4H	16.55	17.45	17.41	18.33	19.46	21.53	22.43	22.39	23.32	24.44
	6H	16.84	17.68	17.72	18.57	19.70	22.84	23.67	23.71	24.56	25.70
	8H	16.91	17.71	17.79	18.61	19.75	23.50	24.30	24.38	25.21	26.34
	12H	16.93	17.69	17.82	18.60	19.76	24.23	25.00	25.12	25.90	27.06
4H	2H	15.66	16.57	16.53	17.45	18.57	18.02	18.92	18.89	19.80	20.92
	3H	17.39	18.15	18.26	19.07	20.20	20.82	21.59	21.70	22.50	23.64
	4H	18.01	18.72	18.90	19.63	20.79	22.25	22.95	23.14	23.86	25.02
	6H	18.44	19.06	19.34	19.99	21.15	23.72	24.34	24.63	25.28	26.44
	8H	18.55	19.13	19.46	20.06	21.24	24.49	25.07	25.39	26.00	27.17
	12H	18.61	19.13	19.53	20.08	21.26	25.33	25.85	26.25	26.80	27.98
8H	4H	18.82	19.40	19.73	20.33	21.51	22.41	22.99	23.31	23.92	25.09
	6H	19.46	19.95	20.39	20.92	22.09	24.04	24.53	24.98	25.50	26.68
	8H	19.68	20.12	20.63	21.08	22.27	24.94	25.37	25.88	26.33	27.53
	12H	19.83	20.22	20.77	21.17	22.41	25.94	26.33	26.89	27.28	28.52
12H	4H	19.03	19.55	19.95	20.50	21.69	22.39	22.92	23.32	23.86	25.05
	6H	19.80	20.23	20.74	21.19	22.39	24.07	24.51	25.01	25.47	26.66
	8H	20.11	20.50	21.06	21.45	22.69	25.01	25.40	25.96	26.35	27.59