

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: P998957

Luminaire Tested: SA2XXDIP-B675D925UB40-4F0-XX-W2A-D

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998957
REPORT IS A COMBINATION OF REPORTS P984703 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B675D925UB40-4F0-XX-W2A-D
Description: Define 2 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

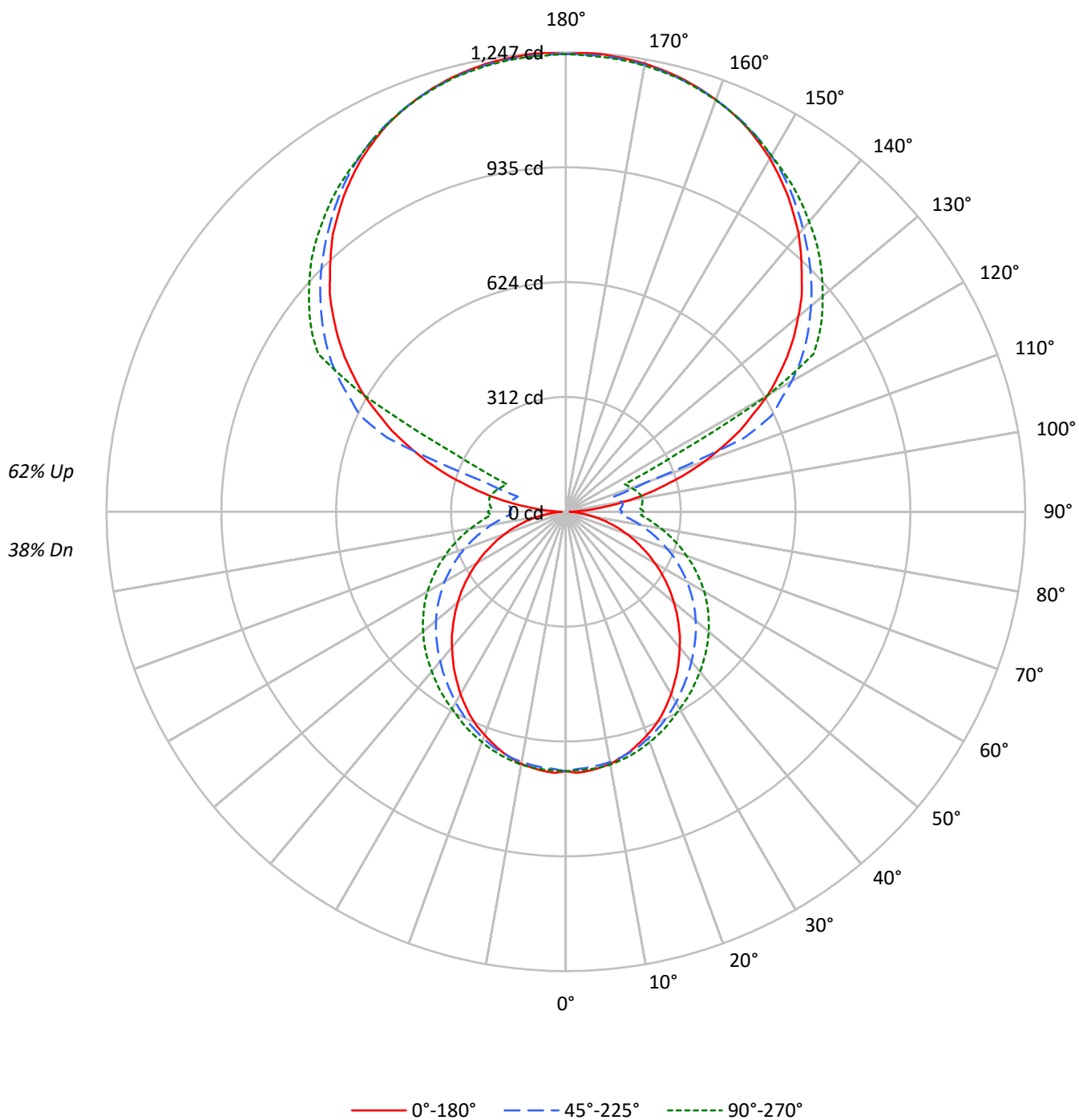
Lumens per Lamp: N/A
Luminaire Lumens: 6332.0 lumens
Efficiency: N/A
Efficacy: 98.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 64.4
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	104	104	104	104	95	95	95	95	77	77	77	60	60	60	45	45	45
1	94	89	85	81	85	81	77	74	65	63	60	51	49	48	38	37	36
2	85	77	71	65	77	70	64	60	57	53	49	44	41	39	33	31	29
3	77	67	60	54	70	61	55	49	49	45	41	39	35	32	29	26	24
4	70	59	51	45	63	54	47	41	44	38	34	34	30	27	25	23	21
5	64	53	44	38	58	48	41	35	39	33	29	30	27	23	23	20	18
6	59	47	39	33	53	43	36	30	35	29	25	27	23	20	20	18	15
7	55	42	34	29	49	39	31	26	31	26	22	25	21	18	19	16	14
8	51	38	30	25	46	35	28	23	29	23	19	23	19	16	17	14	12
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11
10	44	32	25	20	40	29	23	18	24	19	15	19	15	13	15	12	10

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	1.1
10°-20°	191.5	3.0
20°-30°	290.1	4.6
30°-40°	353.3	5.6
40°-50°	380.1	6.0
50°-60°	369.1	5.8
60°-70°	322.4	5.1
70°-80°	248.1	3.9
80°-90°	168.4	2.7
90°-100°	155.6	2.5
100°-110°	236.4	3.7
110°-120°	460.4	7.3
120°-130°	702.7	11.1
130°-140°	726.6	11.5
140°-150°	665.5	10.5
150°-160°	533.3	8.4
160°-170°	343.6	5.4
170°-180°	118.3	1.9
0°-30°	548.3	8.7
0°-40°	901.6	14.2
0°-60°	1650.8	26.1
0°-90°	2389.6	37.7
90°-120°	852.4	13.5
90°-150°	2947.2	46.5
90°-180°	3942.0	62.3
0°-180°	6332.0	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	80	153	198	212	10
95°	67	85	152	196	207	76
105°	278	335	143	188	203	298
115°	521	548	616	230	177	513
125°	733	745	794	828	840	654
135°	906	920	938	969	975	700
145°	1049	1048	1064	1076	1077	657
155°	1155	1147	1158	1164	1156	532
165°	1217	1212	1215	1221	1215	344
175°	1245	1239	1241	1247	1238	119
180°	1243	1243	1243	1243	1243	

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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°	11.1	80.2	152.7	198.0	212.1
92.5°	31.7	82.2	147.1	188.7	201.9
95°	66.6	84.9	152.5	195.7	207.1
97.5°	112.3	82.5	156.1	196.6	209.7
100°	166.2	80.9	153.3	198.2	211.2
102.5°	224.6	256.5	147.9	194.6	208.5
105°	278.4	335.0	142.6	188.2	203.0
107.5°	342.3	389.2	137.2	181.8	196.7
110°	402.4	441.7	231.8	174.6	189.4

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	460.0	492.4	524.2	169.2	183.1
115°	521.1	547.6	616.0	230.4	176.8
117.5°	573.1	599.2	657.4	559.4	334.1
120°	632.5	650.0	707.1	746.3	636.3
122.5°	682.8	698.2	753.9	786.9	797.0
125°	733.0	744.7	794.5	828.3	840.1
127.5°	779.7	791.3	832.4	866.9	877.0
130°	823.8	837.2	868.6	902.9	910.2
132.5°	868.8	879.4	904.6	936.2	943.5
135°	905.5	919.9	938.2	968.7	975.0
137.5°	945.1	955.9	970.0	998.3	1002.8
140°	983.7	989.9	1001.8	1026.3	1027.9
142.5°	1016.1	1021.4	1033.1	1052.5	1053.1
145°	1049.3	1048.4	1063.7	1076.1	1076.7
147.5°	1078.9	1076.2	1091.5	1097.0	1096.5
150°	1107.7	1101.4	1115.8	1121.2	1116.7
152.5°	1132.0	1124.8	1138.3	1143.7	1137.4
155°	1155.4	1147.3	1158.1	1163.5	1156.3
157.5°	1174.2	1167.1	1175.1	1181.4	1174.2
160°	1190.4	1185.0	1190.4	1195.8	1189.5
162.5°	1204.8	1199.4	1203.9	1210.2	1202.1
165°	1217.4	1212.0	1214.7	1221.0	1214.7
167.5°	1227.3	1221.9	1224.6	1230.9	1222.8
170°	1235.4	1230.0	1231.8	1238.1	1230.0
172.5°	1240.8	1235.4	1237.2	1243.5	1235.4
175°	1245.3	1239.0	1240.8	1247.1	1238.1
177.5°	1247.1	1240.8	1241.7	1248.0	1239.9
180°	1242.6	1242.6	1242.6	1242.6	1242.6

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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	12.35	13.15	13.40	14.21	15.64	15.43	16.22	16.47	17.28	18.71
	3H	13.81	14.53	14.86	15.59	17.04	18.01	18.73	19.07	19.80	21.25
	4H	14.28	14.96	15.35	16.03	17.49	19.26	19.95	20.33	21.01	22.47
	6H	14.56	15.19	15.64	16.27	17.74	20.56	21.19	21.63	22.26	23.73
	8H	14.62	15.22	15.70	16.31	17.77	21.21	21.82	22.29	22.90	24.37
	12H	14.63	15.21	15.72	16.29	17.78	21.94	22.51	23.02	23.59	25.08
4H	2H	13.40	14.08	14.47	15.15	16.60	15.75	16.43	16.82	17.50	18.96
	3H	15.10	15.68	16.18	16.77	18.24	18.54	19.11	19.62	20.21	21.68
	4H	15.72	16.25	16.80	17.34	18.83	19.95	20.48	21.04	21.57	23.06
	6H	16.13	16.59	17.22	17.70	19.18	21.42	21.88	22.51	22.99	24.47
	8H	16.24	16.67	17.33	17.77	19.27	22.17	22.60	23.26	23.70	25.21
	12H	16.28	16.67	17.39	17.78	19.29	23.00	23.39	24.11	24.50	26.01
8H	4H	16.50	16.94	17.60	18.04	19.54	20.09	20.52	21.18	21.62	23.12
	6H	17.13	17.50	18.25	18.64	20.13	21.72	22.08	22.83	23.22	24.72
	8H	17.35	17.67	18.48	18.80	20.31	22.61	22.93	23.73	24.05	25.56
	12H	17.48	17.77	18.61	18.89	20.44	23.60	23.88	24.72	25.00	26.55
12H	4H	16.70	17.09	17.81	18.21	19.71	20.06	20.46	21.17	21.57	23.07
	6H	17.47	17.79	18.59	18.91	20.43	21.74	22.06	22.86	23.18	24.70
	8H	17.77	18.05	18.89	19.17	20.72	22.67	22.95	23.79	24.07	25.62