

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: P998760

Luminaire Tested: SA2XXDIP-B675D330UB30-4F0-XX-W2A-D1

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P998760
REPORT IS A COMBINATION OF REPORTS P984506 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B675D330UB30-4F0-XX-W2A-D1
Description: Define 2 Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

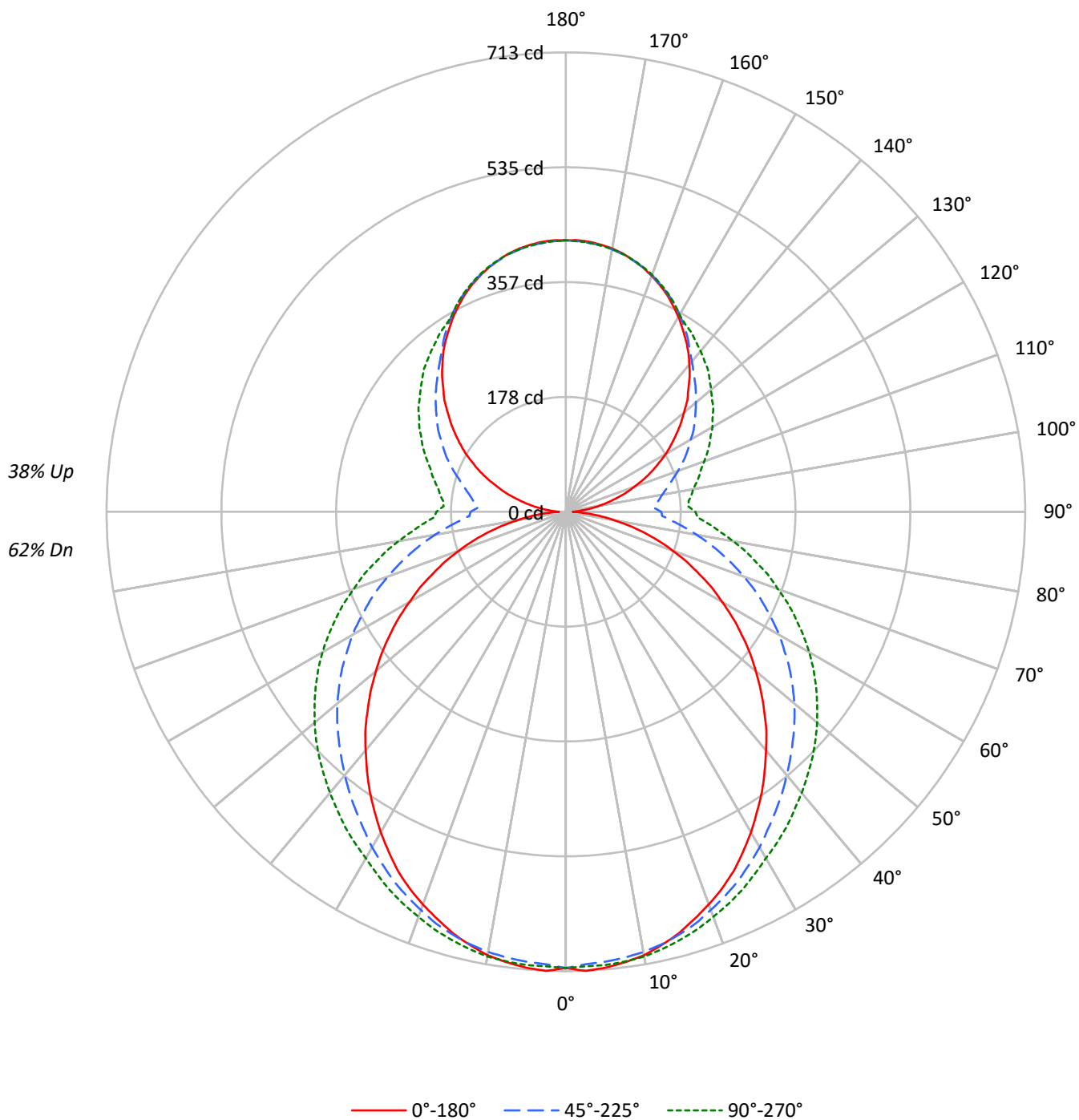
Lumens per Lamp: N/A
Luminaire Lumens: 3881.0 lumens
Efficiency: N/A
Efficacy: 85.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

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°	11209	11209	11209
5°	11260	10732	10671
10°	11184	10360	10209
15°	11026	9975	9734
20°	10827	9570	9284
25°	10631	9185	8876
30°	10355	8791	8472
35°	10077	8412	8175
40°	9784	8086	7880
45°	9503	7789	7624
50°	9204	7516	7369
55°	8886	7225	7111
60°	8503	6921	6840
65°	8098	6573	6527
70°	7644	6199	6192
75°	7060	5826	5874
80°	6148	5436	5546
85°	5212	5071	5260

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9503 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.1	1.7
10°-20°	192.5	5.0
20°-30°	291.7	7.5
30°-40°	355.2	9.2
40°-50°	382.2	9.8
50°-60°	371.2	9.6
60°-70°	324.2	8.4
70°-80°	249.5	6.4
80°-90°	168.3	4.3
90°-100°	141.3	3.6
100°-110°	167.0	4.3
110°-120°	197.4	5.1
120°-130°	217.4	5.6
130°-140°	222.3	5.7
140°-150°	207.4	5.3
150°-160°	172.1	4.4
160°-170°	114.2	2.9
170°-180°	39.9	1.0
0°-30°	551.4	14.2
0°-40°	906.6	23.4
0°-60°	1660.0	42.8
0°-90°	2402.0	61.9
90°-120°	505.7	13.0
90°-150°	1152.8	29.7
90°-180°	1479.0	38.1
0°-180°	3881.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	708	708	708	708	708	
5°	710	707	701	707	706	67
15°	677	679	679	689	688	191
25°	616	623	632	644	648	283
35°	531	548	568	590	597	332
45°	435	463	499	531	541	336
55°	334	370	424	461	474	298
65°	228	278	339	381	394	226
75°	126	184	249	294	307	134
85°	37	101	166	209	224	39
90°	11	74	148	188	201	8
95°	27	78	141	180	191	27
105°	82	112	166	203	214	87
115°	146	160	205	236	246	144
125°	209	212	244	271	279	187
135°	269	273	284	305	312	208
145°	325	327	330	336	340	203
155°	372	373	374	375	374	171
165°	404	404	404	406	405	114
175°	421	420	419	421	419	40
180°	421	421	421	421	421	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	708.1	708.1	708.1	708.1	708.1
2.5°	713.3	710.2	703.0	708.1	706.1
5°	710.2	707.1	701.0	707.1	706.1
7.5°	705.1	703.0	697.9	705.1	704.0
10°	698.9	696.8	693.8	702.0	701.0
12.5°	688.6	689.7	687.6	695.8	694.8
15°	677.3	679.4	679.4	688.6	687.6
17.5°	663.0	667.1	670.2	679.4	679.4
20°	648.6	653.7	657.8	669.1	669.1
22.5°	633.2	639.4	645.5	656.8	658.9
25°	615.8	623.0	632.2	644.5	647.6
27.5°	595.2	606.5	616.8	632.2	634.2
30°	574.7	588.1	601.4	617.8	620.9
32.5°	552.1	567.5	584.0	603.5	609.6
35°	530.6	548.0	567.5	590.1	597.3
37.5°	507.0	526.5	551.1	575.7	582.9
40°	483.4	506.0	533.7	560.4	569.6
42.5°	460.8	483.4	516.2	546.0	555.2
45°	435.1	462.9	498.8	530.6	540.9
47.5°	410.5	440.3	481.3	514.2	525.5
50°	384.9	416.7	462.9	497.7	509.0
52.5°	360.2	394.1	443.4	479.3	491.6
55°	333.5	370.5	423.9	460.8	474.1
57.5°	307.9	348.9	402.3	442.3	455.7
60°	280.2	324.3	382.8	421.8	436.2
62.5°	255.5	301.7	360.2	402.3	415.6
65°	227.8	278.1	338.7	380.8	394.1
67.5°	203.2	255.5	317.1	359.2	373.6
70°	176.5	229.9	293.5	337.6	350.0
72.5°	151.9	207.3	272.0	315.1	330.5
75°	126.2	183.7	249.4	293.5	306.9
77.5°	101.6	161.1	227.8	272.0	286.3
80°	77.0	139.6	206.3	249.4	263.8
82.5°	56.4	118.0	185.8	228.9	242.2
85°	36.9	100.6	166.3	209.4	223.7
87.5°	22.6	84.2	149.8	191.9	205.3
90°	10.7	74.4	147.9	188.2	200.9
92.5°	17.0	74.3	137.2	177.7	190.0
95°	26.7	78.4	140.8	179.8	191.3
97.5°	38.1	85.4	146.4	184.4	196.7
100°	52.3	93.2	151.7	189.7	200.6
102.5°	66.3	102.2	159.0	196.4	207.3
105°	81.5	112.4	166.5	203.1	214.4
107.5°	97.9	124.0	175.3	210.6	220.1
110°	112.5	135.2	185.5	218.4	228.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	129.6	148.1	195.0	226.8	237.4
115°	146.3	159.7	205.2	235.7	245.9
117.5°	162.0	173.1	214.4	244.1	253.2
120°	178.7	185.7	223.8	252.6	262.9
122.5°	194.0	198.6	234.8	261.4	269.9
125°	209.0	212.2	243.9	270.6	279.4
127.5°	224.6	227.5	253.7	278.0	286.1
130°	239.2	242.7	263.6	287.5	294.3
132.5°	255.6	258.0	273.8	295.6	302.7
135°	268.7	272.6	283.6	304.8	312.0
137.5°	284.3	287.5	293.4	312.6	318.3
140°	298.2	300.4	304.3	320.7	325.4
142.5°	312.4	314.6	315.7	328.3	332.0
145°	324.9	327.4	329.6	336.1	339.8
147.5°	337.0	340.2	341.6	343.4	345.0
150°	349.5	351.6	353.0	354.1	353.0
152.5°	360.5	362.6	364.4	365.8	364.4
155°	371.5	372.6	373.6	375.4	374.3
157.5°	381.1	381.8	382.5	385.0	383.2
160°	389.6	390.3	390.7	392.8	391.4
162.5°	397.5	397.5	397.8	400.3	398.5
165°	404.2	403.9	403.9	406.3	404.6
167.5°	410.3	409.2	409.2	411.7	409.9
170°	414.9	413.8	413.5	415.9	413.8
172.5°	418.1	417.0	416.7	419.1	417.0
175°	420.6	419.5	418.8	421.3	419.1
177.5°	422.0	420.9	420.2	422.3	420.2
180°	421.3	421.3	421.3	421.3	421.3

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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	14.61	15.66	15.45	16.53	17.61	17.69	18.73	18.53	19.60	20.69
	3H	16.09	17.03	16.93	17.91	19.02	20.29	21.24	21.14	22.11	23.23
	4H	16.57	17.47	17.43	18.35	19.47	21.55	22.45	22.41	23.33	24.46
	6H	16.86	17.70	17.74	18.59	19.72	22.86	23.69	23.73	24.58	25.72
	8H	16.92	17.73	17.81	18.63	19.77	23.52	24.32	24.40	25.23	26.36
	12H	16.95	17.71	17.84	18.61	19.78	24.25	25.02	25.14	25.92	27.08
4H	2H	15.68	16.58	16.55	17.47	18.59	18.04	18.94	18.90	19.82	20.94
	3H	17.40	18.17	18.28	19.08	20.22	20.84	21.61	21.72	22.52	23.66
	4H	18.03	18.74	18.92	19.65	20.81	22.26	22.97	23.16	23.88	25.04
	6H	18.46	19.08	19.36	20.01	21.17	23.74	24.36	24.65	25.30	26.46
	8H	18.57	19.15	19.48	20.08	21.26	24.51	25.09	25.41	26.01	27.19
	12H	18.62	19.15	19.55	20.10	21.28	25.34	25.87	26.27	26.82	28.00
8H	4H	18.84	19.42	19.74	20.35	21.52	22.42	23.01	23.33	23.93	25.11
	6H	19.48	19.97	20.41	20.94	22.11	24.06	24.55	24.99	25.52	26.70
	8H	19.70	20.14	20.64	21.10	22.29	24.95	25.39	25.90	26.35	27.54
	12H	19.84	20.23	20.79	21.19	22.43	25.96	26.35	26.90	27.30	28.54
12H	4H	19.04	19.57	19.97	20.52	21.70	22.41	22.94	23.34	23.88	25.07
	6H	19.81	20.25	20.76	21.21	22.41	24.09	24.53	25.03	25.49	26.68
	8H	20.13	20.52	21.07	21.47	22.71	25.03	25.42	25.97	26.37	27.61