

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: P645097

Luminaire Tested: OMN4DIP-SR4F0-75D150U930-CLBOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P645097
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-20)
Test Lab: INNOVATION CENTER
Issue Date: 2/16/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: OMN4DIP-SR4F0-75D150U930-CLBOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - BATWING LENS - 750 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 1500 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

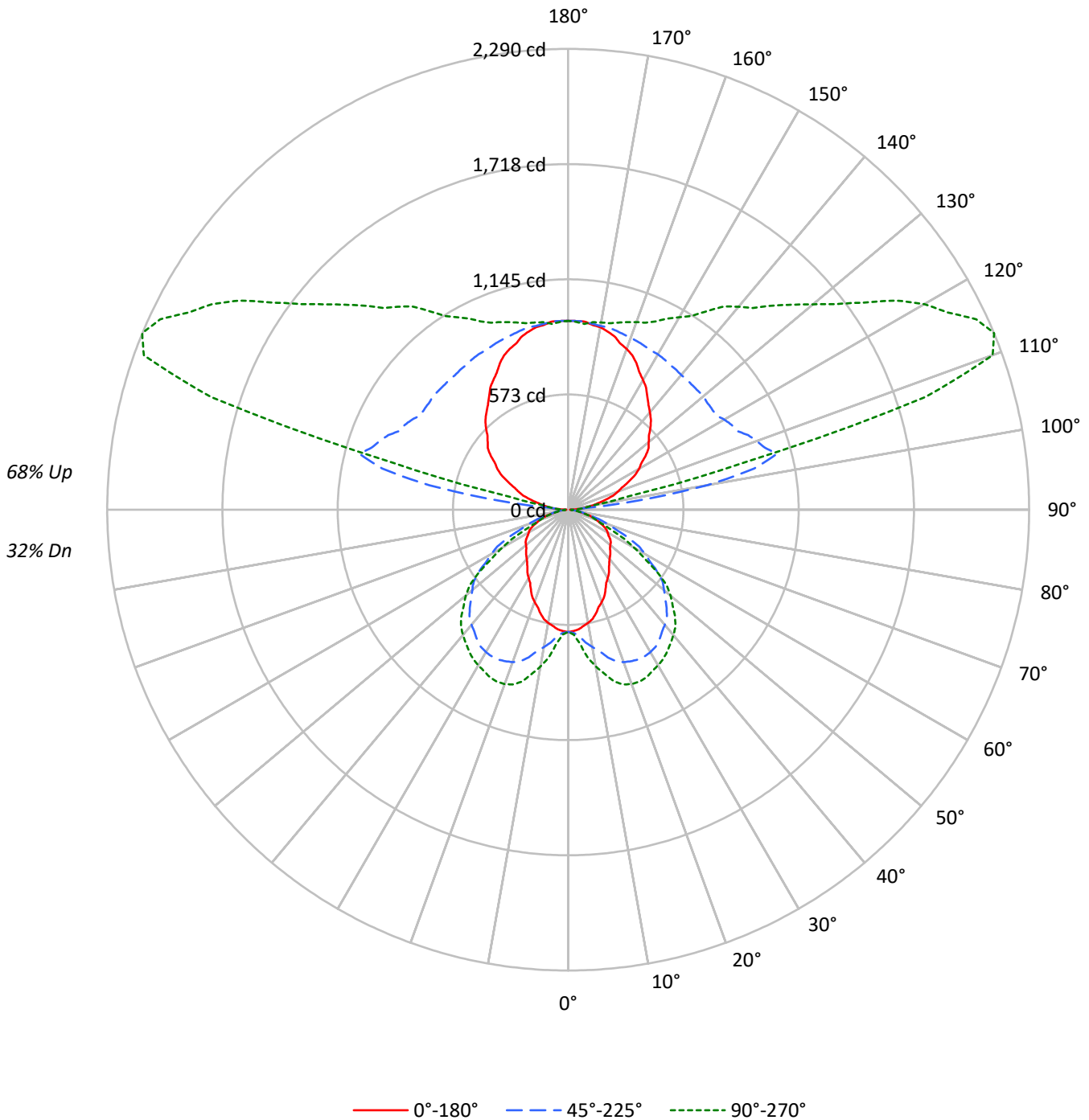
Lumens per Lamp: N/A
Luminaire Lumens: 7395.3 lumens
Efficiency: N/A
Efficacy: 105.0 lumens/watt
Spacing Criteria (0/90/45): 0.99 / 1.87 / 1.75
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 70.4
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				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	103	103	103	103	92	92	92	92	73	73	73	55	55	55	39	39	39	39	39	39	32
1	94	90	86	82	84	81	78	75	64	62	60	49	47	46	35	34	33	33	33	33	27
2	85	78	72	67	76	70	65	61	56	53	50	43	41	39	31	29	28	28	28	28	22
3	78	69	61	56	70	62	56	51	49	45	42	38	35	32	27	25	24	24	24	24	19
4	71	60	53	47	64	55	48	43	44	39	35	33	30	28	24	22	20	20	20	20	16
5	65	54	46	40	58	49	42	37	39	34	30	30	26	24	21	19	17	17	17	17	14
6	60	48	40	34	53	43	37	32	35	30	26	27	23	21	19	17	15	15	15	15	12
7	55	43	35	30	49	39	32	27	31	26	23	24	21	18	18	15	13	13	13	13	11
8	51	39	31	26	46	35	29	24	28	24	20	22	19	16	16	14	12	12	12	12	9
9	47	35	28	23	42	32	26	21	26	21	18	20	17	14	15	12	11	11	11	11	8
10	44	32	25	20	40	29	23	19	24	19	16	19	15	13	14	11	10	10	10	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9817	9817	9817
5°	9671	10220	10817
10°	9365	11358	12959
15°	8909	12692	14771
20°	8381	13847	15840
25°	7808	14635	16372
30°	7301	15236	16634
35°	6968	15552	16915
40°	6734	15734	17136
45°	6747	15787	17144
50°	6855	15626	16656
55°	7164	15325	15125
60°	7304	14244	12281
65°	7400	12478	9020
70°	7076	9810	7010
75°	6351	7324	5908
80°	5393	5783	4733
85°	5243	4724	3927

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 17144 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.4	0.8
10°-20°	207.2	2.8
20°-30°	344.2	4.7
30°-40°	434.3	5.9
40°-50°	464.2	6.3
50°-60°	409.7	5.5
60°-70°	263.0	3.6
70°-80°	116.6	1.6
80°-90°	32.3	0.4
90°-100°	123.4	1.7
100°-110°	827.4	11.2
110°-120°	1120.2	15.1
120°-130°	911.1	12.3
130°-140°	731.0	9.9
140°-150°	576.1	7.8
150°-160°	421.3	5.7
160°-170°	261.7	3.5
170°-180°	89.2	1.2
0°-30°	613.8	8.3
0°-40°	1048.1	14.2
0°-60°	1922.1	26.0
0°-90°	2334.0	31.6
90°-120°	2071.0	28.0
90°-150°	4289.2	58.0
90°-180°	5061.0	68.4
0°-180°	7395.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	608	608	608	608	608	
5°	597	615	631	652	667	56
15°	533	615	759	850	884	149
25°	438	594	822	898	919	202
35°	354	543	789	840	858	222
45°	296	464	691	734	751	228
55°	254	365	544	547	537	226
65°	194	245	327	265	236	190
75°	102	113	117	100	95	109
85°	28	24	26	23	21	30
90°	10	16	20	26	23	9
95°	63	98	54	58	68	64
105°	193	290	1073	1366	903	204
115°	332	400	925	1915	2237	330
125°	471	534	872	1519	1794	418
135°	578	642	874	1250	1434	445
145°	685	742	880	1089	1204	430
155°	803	832	897	987	1033	369
165°	891	903	921	945	962	250
175°	939	944	939	932	927	89
180°	939	939	939	939	939	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	608.0	608.0	608.0	608.0	608.0
2.5°	603.5	612.3	612.5	616.0	620.4
5°	596.7	614.6	630.6	652.2	667.4
7.5°	582.5	614.6	665.7	715.7	740.6
10°	571.2	615.5	692.8	760.0	790.4
12.5°	556.5	615.1	720.0	800.8	835.6
15°	533.0	614.6	759.3	850.5	883.7
17.5°	505.9	612.1	790.1	881.5	910.5
20°	487.8	609.5	805.9	892.8	921.9
22.5°	467.4	603.5	815.0	898.4	925.3
25°	438.3	594.5	821.5	898.3	919.0
27.5°	409.7	581.7	821.8	886.9	904.6
30°	391.6	571.4	817.2	875.6	892.2
32.5°	375.8	560.0	808.2	862.0	879.7
35°	353.5	542.9	789.0	840.3	858.2
37.5°	334.2	523.4	764.6	814.6	835.6
40°	319.5	507.6	746.5	796.4	813.0
42.5°	308.2	490.7	725.0	773.7	788.1
45°	295.5	464.2	691.4	734.2	750.8
47.5°	281.9	436.8	652.7	693.1	703.8
50°	272.9	416.7	622.1	659.0	663.1
52.5°	267.2	395.5	592.7	615.9	616.7
55°	254.5	365.1	544.4	547.0	537.3
57.5°	237.5	329.6	483.0	469.2	445.9
60°	226.2	305.0	441.1	413.5	380.3
62.5°	214.9	281.5	397.0	352.3	313.6
65°	193.7	244.9	326.6	265.2	236.1
67.5°	169.1	204.5	256.5	198.4	179.0
70°	149.9	177.5	207.8	162.3	148.5
72.5°	131.8	150.6	168.3	134.2	127.0
75°	101.8	112.9	117.4	100.3	94.7
77.5°	74.9	75.5	81.4	70.6	67.9
80°	58.0	55.2	62.2	53.7	50.9
82.5°	44.4	40.5	45.2	39.0	37.3
85°	28.3	24.1	25.5	22.6	21.2
87.5°	16.7	14.5	15.4	15.4	13.7
90°	9.9	15.7	20.3	26.1	23.4
92.5°	27.5	29.9	33.3	42.9	44.7
95°	62.8	97.6	54.3	57.6	67.8
97.5°	97.7	177.8	352.5	105.2	90.0
100°	124.9	218.9	700.8	207.8	137.2
102.5°	152.1	251.8	946.3	542.7	296.6
105°	192.9	289.6	1072.7	1366.3	903.1
107.5°	235.1	306.5	1024.3	1987.8	1860.6
110°	262.3	330.2	995.9	2088.6	2243.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	290.6	358.5	967.6	2029.7	2290.3
115°	331.7	399.6	925.1	1915.4	2237.2
117.5°	375.1	442.1	914.5	1791.6	2122.7
120°	407.1	470.5	895.6	1697.5	2042.4
122.5°	430.7	497.7	870.8	1616.6	1933.8
125°	470.6	534.1	872.0	1518.8	1794.5
127.5°	503.4	569.1	871.7	1405.1	1677.6
130°	522.3	591.5	876.5	1328.1	1587.9
132.5°	543.6	612.9	874.2	1294.0	1507.6
135°	578.5	642.0	873.6	1249.7	1434.4
137.5°	608.0	676.1	873.6	1200.7	1358.8
140°	631.6	695.1	873.6	1172.0	1316.3
142.5°	655.2	714.1	878.3	1138.8	1273.8
145°	684.7	742.4	879.5	1088.8	1204.2
147.5°	720.1	770.9	886.6	1052.7	1141.6
150°	743.8	789.9	891.3	1028.8	1103.8
152.5°	767.4	808.9	891.3	1009.6	1070.8
155°	802.8	831.6	897.2	986.8	1033.0
157.5°	831.1	858.8	904.3	972.4	1005.8
160°	850.0	873.1	909.0	962.8	991.7
162.5°	864.2	887.3	913.8	957.9	977.5
165°	891.3	902.9	920.8	944.9	962.2
167.5°	906.7	917.1	926.7	938.8	949.2
170°	920.8	926.6	926.7	938.7	944.5
172.5°	925.6	936.0	931.5	934.0	939.7
175°	938.6	944.3	938.6	932.5	926.7
177.5°	938.6	943.2	938.6	938.5	933.8
180°	938.6	938.6	938.6	938.6	938.6

(END OF REPORT)