

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: P644640

Luminaire Tested: OMN4DIP-SR4F0-100D75U835-FLLOOB-1DUDD-WW

Issue Date: 2/16/2023



Test Information

Test Method: LM-79-2019
Report Number: P644640
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-19)
Test Lab: INNOVATION CENTER
Issue Date: 2/16/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: OMN4DIP-SR4F0-100D75U835-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - FLAT FROSTED LENS - 1000 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 750 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

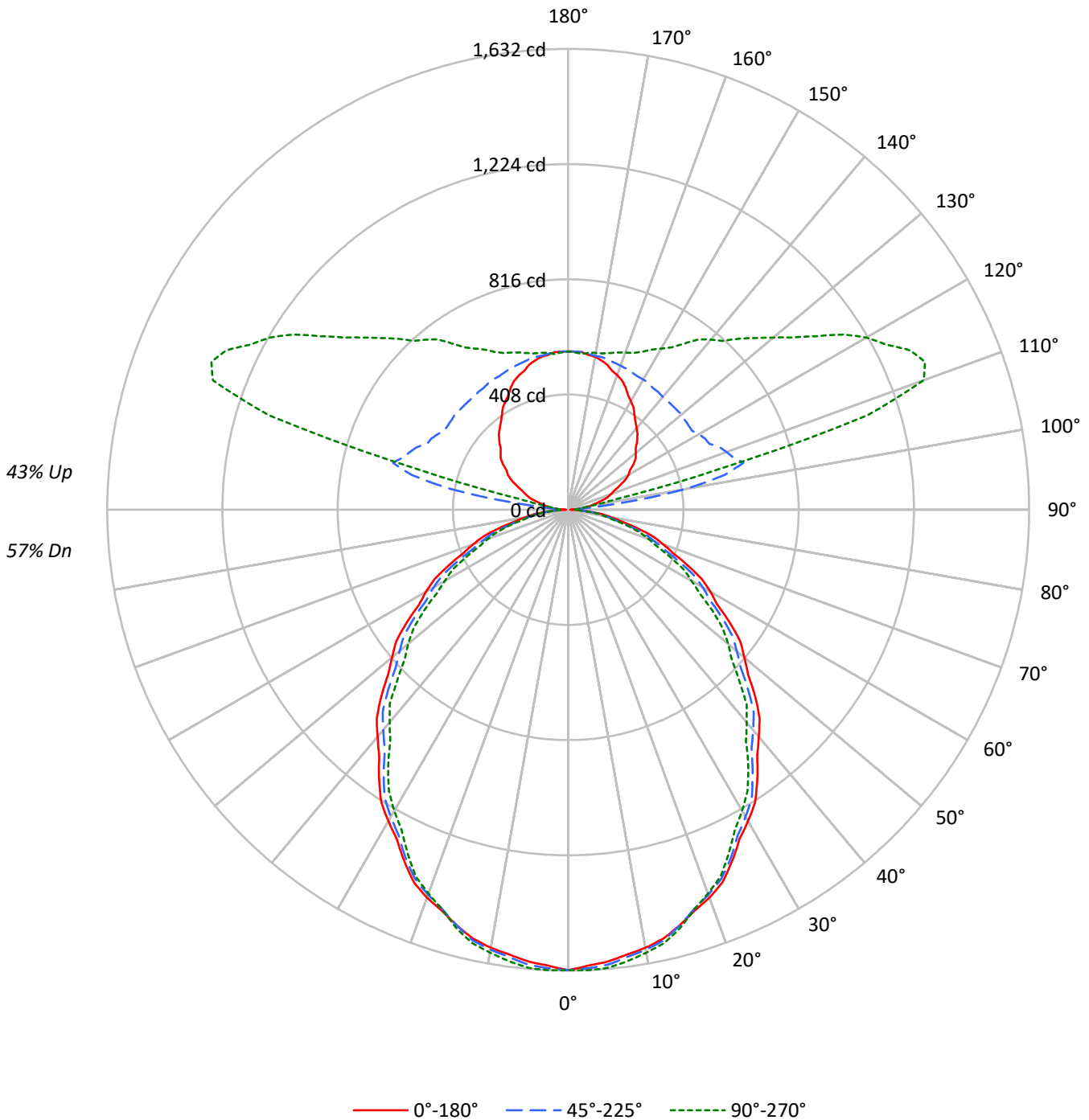
Lumens per Lamp: N/A
Luminaire Lumens: 6988.5 lumens
Efficiency: N/A
Efficacy: 137.8 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.13 / 1.26
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 50.7
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	
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	0
RCR																		
0	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	57
1	99	95	91	88	92	89	85	82	76	74	72	65	64	62	55	54	53	48
2	91	83	77	72	84	78	72	68	67	63	60	58	55	52	49	46	45	40
3	83	73	66	60	77	68	62	57	59	54	50	51	47	44	43	40	38	34
4	76	65	57	51	70	61	54	48	53	47	43	46	41	38	39	36	33	29
5	70	58	50	44	65	54	47	41	47	42	37	41	36	33	35	32	29	26
6	64	52	44	38	60	49	42	36	43	37	33	37	32	29	32	28	25	23
7	59	47	39	33	55	44	37	32	39	33	29	34	29	26	29	25	23	20
8	55	43	35	30	51	40	33	28	35	30	26	31	26	23	27	23	20	18
9	51	39	32	27	48	37	30	25	33	27	23	29	24	21	25	21	18	16
10	48	36	29	24	45	34	27	23	30	25	21	26	22	19	23	19	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	26329	26329	26329
5°	26034	26214	26394
10°	25825	25935	26117
15°	25478	25478	25626
20°	25122	24931	24854
25°	24465	24268	23952
30°	23743	23411	22956
35°	23002	22432	21908
40°	22118	21463	20714
45°	21379	20569	19555
50°	20451	19560	18558
55°	19674	18674	17548
60°	18771	17767	16262
65°	17799	16527	15255
70°	16862	15290	14242
75°	15777	13980	13288
80°	14440	12794	12171
85°	13561	11912	11097

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 21379 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.4	2.2
10°-20°	430.5	6.2
20°-30°	625.9	9.0
30°-40°	712.0	10.2
40°-50°	694.2	9.9
50°-60°	592.5	8.5
60°-70°	430.6	6.2
70°-80°	243.5	3.5
80°-90°	76.2	1.1
90°-100°	78.3	1.1
100°-110°	496.1	7.1
110°-120°	669.6	9.6
120°-130°	544.3	7.8
130°-140°	436.4	6.2
140°-150°	343.9	4.9
150°-160°	251.5	3.6
160°-170°	156.2	2.2
170°-180°	53.3	0.8
0°-30°	1209.7	17.3
0°-40°	1921.7	27.5
0°-60°	3208.4	45.9
0°-90°	3958.8	56.6
90°-120°	1244.1	17.8
90°-150°	2568.7	36.8
90°-180°	3030.0	43.4
0°-180°	6988.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1631	1631	1631	1631	1631	
5°	1606	1630	1617	1615	1628	152
15°	1524	1544	1524	1522	1533	430
25°	1373	1386	1362	1338	1344	632
35°	1167	1171	1138	1112	1112	729
45°	936	932	901	869	856	721
55°	699	697	663	632	623	624
65°	466	462	433	406	399	463
75°	253	244	224	215	213	268
85°	73	64	64	62	60	78
90°	9	14	20	22	22	10
95°	46	61	35	38	43	45
105°	120	175	642	817	539	128
115°	200	240	552	1143	1336	200
125°	283	321	520	906	1071	251
135°	345	383	522	746	856	266
145°	409	443	525	650	719	257
155°	479	496	536	589	617	220
165°	532	539	550	564	574	149
175°	560	564	560	557	553	53
180°	560	560	560	560	560	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1630.7	1630.7	1630.7	1630.7	1630.7
2.5°	1616.5	1637.3	1625.4	1625.5	1632.5
5°	1606.3	1630.1	1617.4	1615.4	1628.5
7.5°	1589.4	1612.8	1597.8	1595.6	1612.5
10°	1575.2	1596.9	1581.9	1577.8	1593.0
12.5°	1555.7	1577.4	1562.3	1556.5	1571.7
15°	1524.2	1543.7	1524.2	1522.2	1533.1
17.5°	1488.7	1505.6	1482.9	1475.6	1483.8
20°	1462.1	1477.2	1451.0	1440.0	1446.5
22.5°	1428.3	1443.5	1415.5	1399.2	1407.5
25°	1373.3	1386.3	1362.2	1338.0	1344.5
27.5°	1314.3	1324.3	1300.1	1275.3	1277.5
30°	1273.5	1280.0	1255.7	1229.2	1231.3
32.5°	1230.9	1235.7	1209.6	1181.2	1181.6
35°	1167.0	1171.3	1138.1	1111.5	1111.5
37.5°	1099.1	1101.7	1066.3	1037.4	1034.3
40°	1049.4	1053.7	1018.3	989.4	982.8
42.5°	1003.3	1004.1	972.2	943.2	934.9
45°	936.3	931.9	900.8	869.4	856.4
47.5°	863.9	863.9	828.4	797.1	784.9
50°	814.2	814.2	778.7	747.5	738.8
52.5°	768.1	766.3	732.6	701.2	689.1
55°	698.9	696.7	663.4	632.1	623.4
57.5°	625.6	625.6	594.6	561.1	551.5
60°	581.3	581.3	550.2	516.6	503.6
62.5°	533.4	531.6	500.5	470.6	462.8
65°	465.9	461.6	432.6	405.9	399.3
67.5°	401.6	397.2	366.5	345.1	340.8
70°	357.2	352.9	323.9	306.1	301.7
72.5°	314.6	308.5	283.1	268.8	264.5
75°	252.9	244.2	224.1	215.2	213.0
77.5°	194.4	179.6	171.3	165.0	162.8
80°	155.3	142.3	137.6	133.1	130.9
82.5°	121.6	108.6	107.4	104.7	102.5
85°	73.2	64.5	64.3	62.1	59.9
87.5°	31.9	27.9	28.9	29.2	29.2
90°	8.9	14.5	20.4	21.7	21.7
92.5°	24.4	23.1	25.3	31.2	32.2
95°	45.9	61.4	34.8	38.5	43.2
97.5°	65.6	109.4	213.4	65.1	55.1
100°	82.5	134.5	420.2	124.6	83.3
102.5°	97.6	152.4	566.8	325.2	177.3
105°	120.3	174.6	642.2	816.9	539.1
107.5°	145.3	185.5	613.3	1188.0	1110.7
110°	160.4	199.6	596.4	1248.2	1339.0

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	177.3	216.5	579.5	1213.0	1367.2
115°	200.5	239.6	551.9	1142.6	1335.5
117.5°	226.5	265.0	545.6	1068.7	1267.1
120°	246.3	282.0	534.3	1012.5	1219.2
122.5°	258.6	298.8	520.2	964.2	1154.4
125°	282.8	320.7	520.2	905.8	1071.2
127.5°	301.0	341.4	520.9	838.1	1001.5
130°	312.3	353.7	523.7	792.8	947.9
132.5°	324.6	366.0	522.0	772.5	900.0
135°	345.3	383.2	521.5	746.0	856.3
137.5°	362.9	403.6	521.5	716.8	811.2
140°	377.0	414.9	521.5	699.7	785.8
142.5°	391.1	426.3	524.3	679.8	760.4
145°	408.8	443.2	525.0	649.9	718.8
147.5°	429.9	460.2	529.3	628.4	681.5
150°	444.0	471.6	532.1	614.2	658.9
152.5°	458.1	482.9	532.1	602.7	639.2
155°	479.2	496.5	535.6	589.1	616.7
157.5°	496.1	512.7	539.8	580.5	600.4
160°	507.4	521.2	542.7	574.8	592.0
162.5°	515.9	529.7	545.5	571.8	583.5
165°	532.1	539.0	549.7	564.0	574.4
167.5°	541.2	547.5	553.2	560.4	566.6
170°	549.7	553.2	553.2	560.4	563.8
172.5°	552.5	558.7	556.0	557.5	561.0
175°	560.3	563.7	560.3	556.7	553.2
177.5°	560.3	563.0	560.3	560.2	557.5
180°	560.3	560.3	560.3	560.3	560.3

(END OF REPORT)