

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: P644237

Luminaire Tested: CRQ4DIP-SR4F0-100D75U930-FLLFLL-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644237
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2206-689-28, G2-2206-689-14)
Test Lab: INNOVATION CENTER
Issue Date: 2/20/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: CRQ4DIP-SR4F0-100D75U930-FLLFLL-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 1000 LUMENS PER FOOT
UPLIGHT - CURVED FROSTED LENS - 750 LUMENS PER FOOT
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

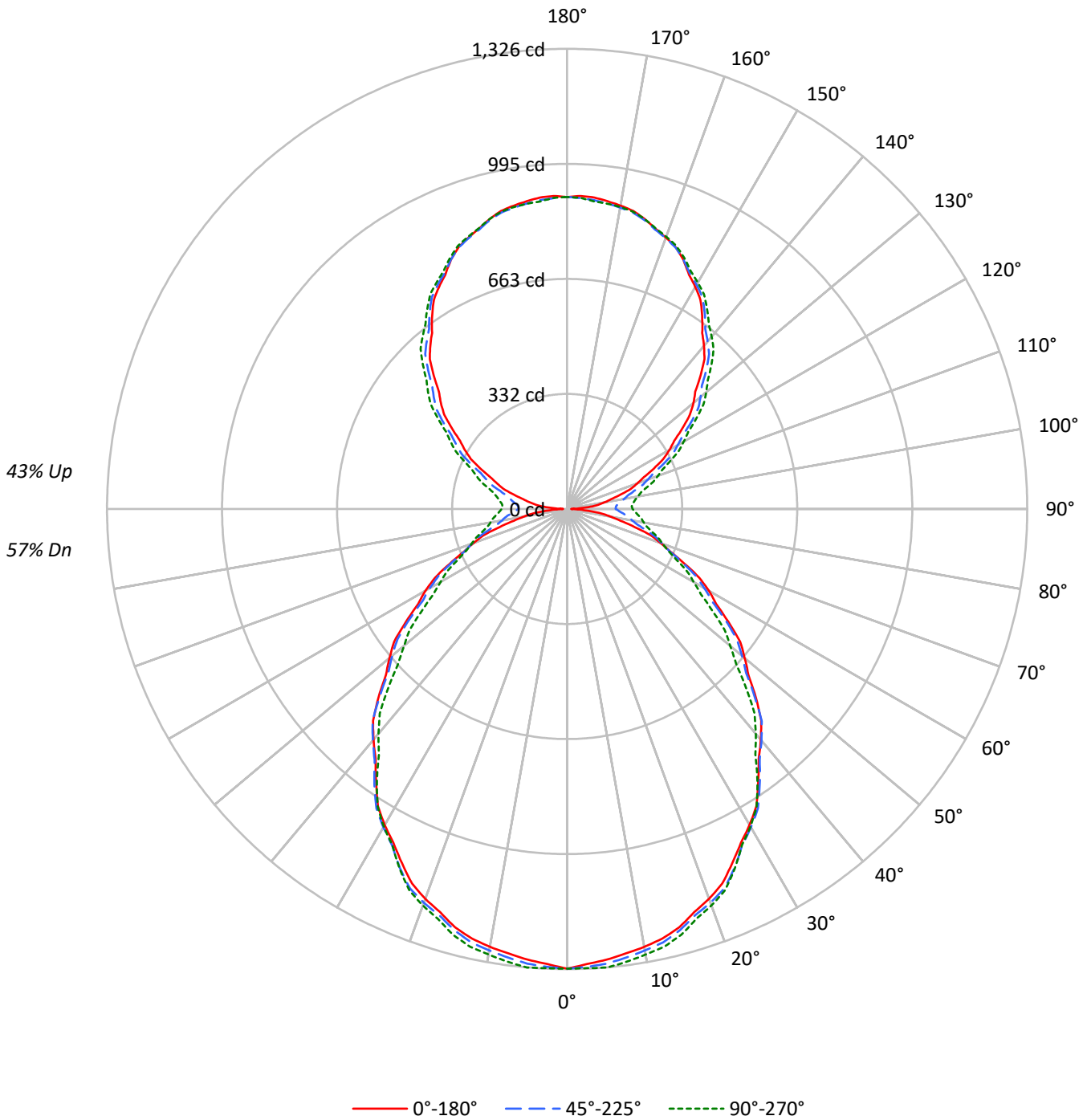
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6069.2 lumens
Efficiency: N/A
Efficacy: 119.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.33')
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	63	63	63	57
1	99	94	90	86	92	88	84	81	76	73	70	64	63	61	54	53	52	47
2	90	82	76	70	83	77	71	66	66	62	58	57	53	51	48	45	43	39
3	82	72	65	59	76	67	61	55	58	53	49	50	46	43	42	39	37	33
4	75	64	56	50	70	60	53	47	52	46	42	45	40	37	38	35	32	28
5	69	57	49	43	64	53	46	40	47	41	36	40	36	32	34	31	28	25
6	64	51	43	37	59	48	41	35	42	36	32	36	32	28	31	27	25	22
7	59	46	38	33	55	44	36	31	38	32	28	33	28	25	28	25	22	19
8	55	42	34	29	51	40	33	28	35	29	25	30	26	22	26	22	20	17
9	51	39	31	26	47	36	29	25	32	26	22	28	23	20	24	21	18	16
10	48	35	28	23	44	33	27	22	30	24	20	26	21	18	22	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21385	21385	21385
5°	20980	18881	18295
10°	20704	16811	15804
15°	20402	15055	13824
20°	19935	13507	12092
25°	19313	12051	10536
30°	18700	10668	9145
35°	17873	9393	7849
40°	17099	8208	6655
45°	16206	7056	5553
50°	15259	5994	4555
55°	14258	5039	3722
60°	13302	4151	3047
65°	12125	3369	2517
70°	10994	2724	2127
75°	9612	2241	1862
80°	8031	1895	1688
85°	5854	1703	1598

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 16206 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.0	2.1
10°-20°	354.9	5.8
20°-30°	524.0	8.6
30°-40°	602.8	9.9
40°-50°	585.0	9.6
50°-60°	492.1	8.1
60°-70°	364.9	6.0
70°-80°	245.6	4.0
80°-90°	162.9	2.7
90°-100°	148.4	2.4
100°-110°	210.7	3.5
110°-120°	301.6	5.0
120°-130°	387.7	6.4
130°-140°	437.4	7.2
140°-150°	432.1	7.1
150°-160°	365.5	6.0
160°-170°	243.3	4.0
170°-180°	85.1	1.4
0°-30°	1003.9	16.5
0°-40°	1606.7	26.5
0°-60°	2683.8	44.2
0°-90°	3457.4	57.0
90°-120°	660.7	10.9
90°-150°	1917.9	31.6
90°-180°	2612.0	43.0
0°-180°	6069.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1324	1324	1324	1324	1324	
5°	1304	1328	1315	1317	1326	124
15°	1248	1268	1256	1261	1270	351
25°	1126	1146	1141	1136	1143	519
35°	960	977	968	956	956	601
45°	769	779	764	740	730	593
55°	567	578	556	523	510	508
65°	374	382	367	353	348	372
75°	202	210	233	249	253	216
85°	62	97	164	197	206	65
90°	12	69	140	177	188	12
95°	62	79	145	182	190	60
105°	159	161	199	230	236	169
115°	276	283	305	324	328	273
125°	405	418	436	450	454	363
135°	544	556	567	581	588	419
145°	678	687	691	696	703	424
155°	792	797	793	794	799	364
165°	864	868	862	859	864	244
175°	901	904	893	889	889	85
180°	899	899	899	899	899	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1324.5	1324.5	1324.5	1324.5	1324.5
2.5°	1312.5	1331.5	1320.7	1323.0	1324.5
5°	1303.9	1327.7	1315.1	1317.2	1326.3
7.5°	1291.9	1314.6	1303.7	1305.2	1315.9
10°	1281.4	1303.4	1291.7	1294.7	1303.9
12.5°	1268.0	1289.9	1279.0	1282.8	1291.9
15°	1247.8	1267.9	1256.2	1261.1	1270.2
17.5°	1217.8	1238.5	1227.0	1229.3	1238.4
20°	1195.4	1214.6	1207.6	1206.8	1216.0
22.5°	1168.4	1189.1	1183.6	1178.4	1189.0
25°	1126.2	1146.3	1141.1	1135.7	1143.0
27.5°	1084.3	1101.2	1092.5	1085.9	1091.4
30°	1051.3	1069.7	1058.9	1051.5	1056.9
32.5°	1015.4	1034.5	1022.9	1014.0	1016.5
35°	959.7	977.1	968.1	955.9	955.9
37.5°	906.9	920.2	911.2	894.5	890.5
40°	868.0	882.7	870.8	851.0	845.6
42.5°	827.6	842.3	829.7	807.6	799.2
45°	768.9	779.0	764.2	740.5	729.6
47.5°	708.2	719.5	699.5	673.2	660.0
50°	667.8	679.8	657.6	628.2	613.6
52.5°	628.9	638.7	616.4	584.1	571.7
55°	566.8	577.9	555.6	522.6	509.9
57.5°	508.8	519.5	494.7	467.8	457.0
60°	471.4	480.6	456.5	431.2	421.2
62.5°	429.5	439.5	417.6	399.1	390.6
65°	374.1	381.6	366.8	353.0	348.5
67.5°	322.1	327.7	319.6	315.7	314.2
70°	286.2	291.8	291.2	293.4	292.6
72.5°	253.3	258.2	266.6	274.1	274.8
75°	202.0	209.5	233.4	248.9	252.7
77.5°	157.1	164.3	206.3	228.6	234.4
80°	127.2	140.3	190.7	217.5	224.1
82.5°	100.3	119.2	178.9	209.5	216.0
85°	61.7	96.9	164.0	197.4	205.8
87.5°	29.4	79.1	150.3	186.0	195.7
90°	12.3	68.6	139.9	177.1	188.3
92.5°	31.3	69.9	140.1	176.5	186.2
95°	61.6	79.4	145.2	182.3	189.7
97.5°	90.2	97.0	156.5	190.4	197.8
100°	109.3	112.3	166.5	199.0	206.3
102.5°	129.2	130.0	178.9	209.8	217.2
105°	159.0	161.1	199.2	229.8	236.2
107.5°	192.2	195.1	226.4	254.3	260.1
110°	214.4	220.2	247.1	271.9	278.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	239.6	245.4	269.2	291.1	297.6
115°	275.5	283.1	305.3	323.5	328.2
117.5°	313.0	322.4	342.3	358.5	363.0
120°	340.5	349.9	368.3	383.7	387.4
122.5°	365.7	375.8	395.0	410.4	414.1
125°	405.4	417.6	436.0	450.5	454.2
127.5°	446.1	459.0	475.9	490.6	495.4
130°	475.1	487.2	501.9	517.3	522.9
132.5°	501.1	513.3	527.1	543.3	549.6
135°	543.9	556.0	566.8	581.3	587.8
137.5°	585.3	597.1	605.3	616.8	625.0
140°	613.6	623.8	629.8	640.4	647.9
142.5°	639.5	649.8	654.2	663.3	670.8
145°	678.4	686.8	690.8	695.8	703.3
147.5°	714.9	723.1	724.8	729.1	733.8
150°	738.6	746.0	746.2	748.2	752.9
152.5°	760.7	767.4	765.3	766.5	772.0
155°	792.0	796.7	792.9	794.0	798.7
157.5°	816.8	821.5	815.7	817.5	821.2
160°	832.1	836.7	830.2	831.2	834.9
162.5°	846.6	849.7	843.9	842.7	847.9
165°	864.5	868.2	861.6	858.9	864.5
167.5°	879.8	883.5	874.8	871.9	877.5
170°	887.4	891.1	881.7	878.0	883.6
172.5°	894.3	898.0	887.8	883.3	887.4
175°	900.8	904.5	893.1	889.3	889.3
177.5°	902.7	904.9	896.6	892.9	897.3
180°	898.9	898.9	898.9	898.9	898.9

(END OF REPORT)