

Signify Classified - Internal
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: P644426

Luminaire Tested: CRQ4DIP-SR4F0-75D25U835-FLLOOB-1DUDD-WW

Issue Date: 2/20/2023



Test Information

Test Method: LM-79-2019
Report Number: P644426
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2203-563-26, G2-2206-689-14)
Test Lab: INNOVATION CENTER
Issue Date: 2/20/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: CRQ4DIP-SR4F0-75D25U835-FLLOOB-1DUDD-WW
Description: NEO-RAY CIRQUE SUSPENDED LED LUMINAIRE
DOWNLIGHT - CURVED FROSTED LENS - 750 LUMENS PER FOOT
UPLIGHT - BATWING OPTIC - 250 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

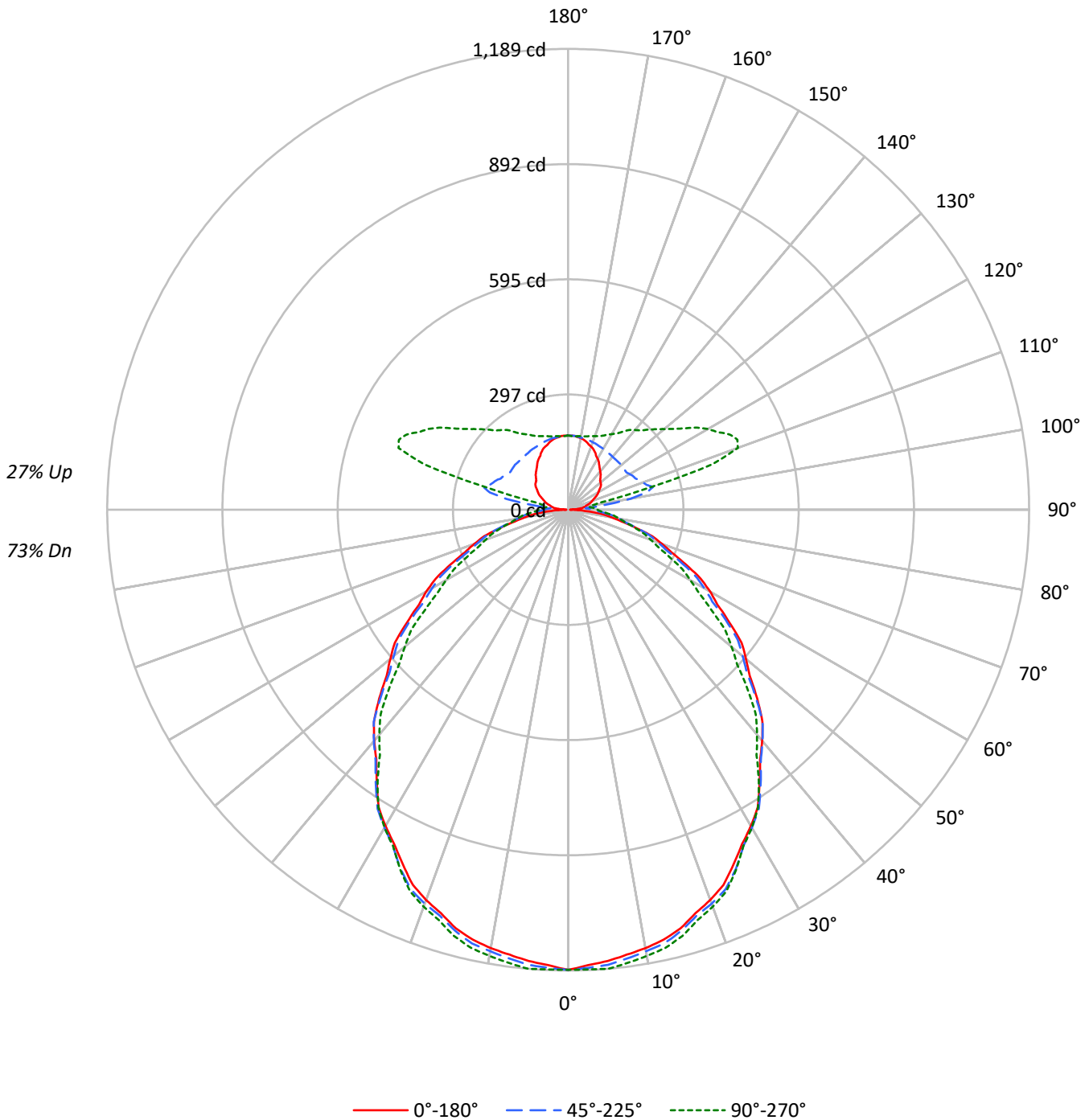
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4088.8 lumens
Efficiency: N/A
Efficacy: 135.8 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: Semi-Direct

Input Watts (W): 30.1
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										
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	50	30	10	0														
RCR																																						
0	113	113	113	113	107	107	107	107	96	96	96	87	87	87	78	78	78	73																				
1	103	98	94	90	97	93	90	86	84	81	79	76	74	72	68	67	65	61																				
2	94	86	79	74	89	82	76	71	74	69	65	67	63	60	60	57	55	51																				
3	86	76	68	62	81	72	65	60	65	60	55	59	55	51	53	50	47	44																				
4	78	67	59	53	74	64	57	51	58	52	47	53	48	44	48	44	41	38																				
5	72	60	52	45	68	57	50	44	52	46	41	48	42	38	43	39	36	33																				
6	67	54	46	40	63	52	44	38	47	41	36	43	38	34	39	35	31	29																				
7	62	49	41	35	59	47	39	34	43	37	32	39	34	30	36	32	28	26																				
8	58	45	37	31	55	43	35	30	39	33	29	36	31	27	33	29	25	23																				
9	54	41	33	28	51	39	32	27	36	30	26	33	28	24	31	26	23	21																				
10	50	38	30	25	48	36	29	25	34	28	23	31	26	22	29	24	21	19																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19168	19168	19168
5°	18806	16924	16400
10°	18559	15058	14167
15°	18288	13485	12392
20°	17869	12098	10838
25°	17311	10802	9444
30°	16763	9545	8197
35°	16020	8395	7036
40°	15328	7349	5965
45°	14526	6317	4978
50°	13678	5350	4083
55°	12782	4501	3293
60°	11925	3690	2632
65°	10871	2942	2083
70°	9857	2305	1646
75°	8617	1771	1298
80°	7198	1317	1010
85°	5247	958	768

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14526 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.1	2.7
10°-20°	318.0	7.8
20°-30°	469.4	11.5
30°-40°	539.7	13.2
40°-50°	523.5	12.8
50°-60°	438.3	10.7
60°-70°	315.8	7.7
70°-80°	192.9	4.7
80°-90°	94.2	2.3
90°-100°	60.6	1.5
100°-110°	181.1	4.4
110°-120°	232.2	5.7
120°-130°	187.1	4.6
130°-140°	149.2	3.6
140°-150°	117.4	2.9
150°-160°	85.9	2.1
160°-170°	53.3	1.3
170°-180°	18.2	0.4
0°-30°	899.4	22.0
0°-40°	1439.1	35.2
0°-60°	2400.9	58.7
0°-90°	3003.7	73.5
90°-120°	473.9	11.6
90°-150°	927.7	22.7
90°-180°	1085.0	26.5
0°-180°	4088.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1187	1187	1187	1187	1187	
5°	1169	1190	1179	1181	1189	111
15°	1118	1135	1125	1130	1139	315
25°	1010	1026	1023	1018	1024	465
35°	860	873	865	857	857	539
45°	689	696	684	664	654	531
55°	508	515	496	466	451	456
65°	335	337	320	297	288	334
75°	181	181	184	179	176	194
85°	55	67	92	99	99	58
90°	5	34	63	74	76	7
95°	26	33	45	58	62	25
105°	54	64	226	293	202	57
115°	78	86	191	394	459	77
125°	102	111	178	309	366	90
135°	118	131	178	255	292	91
145°	140	151	179	222	245	88
155°	164	170	183	201	211	75
165°	182	184	188	193	196	51
175°	191	192	191	190	189	18
180°	191	191	191	191	191	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1187.2	1187.2	1187.2	1187.2	1187.2
2.5°	1176.5	1193.5	1183.2	1185.9	1187.2
5°	1168.8	1190.1	1178.8	1180.7	1188.9
7.5°	1158.0	1177.7	1167.8	1170.0	1179.5
10°	1148.6	1168.3	1157.0	1160.6	1168.8
12.5°	1136.6	1154.9	1146.3	1149.8	1158.0
15°	1118.5	1134.8	1125.2	1130.4	1138.6
17.5°	1091.6	1109.3	1099.0	1101.9	1110.1
20°	1071.5	1087.9	1081.6	1081.7	1089.9
22.5°	1047.4	1065.1	1060.1	1056.3	1065.8
25°	1009.5	1025.9	1022.9	1018.0	1024.5
27.5°	971.9	984.0	978.3	973.3	978.3
30°	942.4	957.1	947.4	942.5	947.4
32.5°	910.2	924.9	915.2	908.9	911.2
35°	860.2	873.3	865.2	856.9	856.9
37.5°	812.9	821.5	815.9	801.8	798.2
40°	778.1	787.9	779.7	762.8	757.9
42.5°	741.8	751.7	742.2	723.9	716.3
45°	689.2	695.7	684.2	663.8	654.0
47.5°	634.9	641.7	625.8	603.4	591.6
50°	598.6	606.8	586.9	563.1	550.0
52.5°	563.8	569.3	550.7	522.9	511.1
55°	508.1	514.6	496.3	465.8	451.1
57.5°	456.1	462.3	440.7	411.6	400.1
60°	422.6	427.5	405.8	375.4	363.9
62.5°	385.0	389.9	369.6	343.2	331.7
65°	335.4	337.0	320.3	296.6	288.4
67.5°	288.8	288.8	274.7	257.1	250.5
70°	256.6	256.6	246.5	232.9	226.4
72.5°	227.0	225.7	219.7	210.2	204.9
75°	181.1	181.1	184.5	179.3	176.1
77.5°	140.9	138.2	152.6	151.9	150.2
80°	114.0	114.0	132.5	135.8	134.1
82.5°	89.9	92.5	116.4	121.0	119.4
85°	55.3	66.8	92.2	98.9	98.9
87.5°	25.2	45.4	72.9	81.9	82.2
90°	5.0	34.1	62.8	74.1	75.7
92.5°	13.3	29.2	54.9	67.2	71.1
95°	26.4	33.0	44.8	57.9	61.9
97.5°	37.2	44.2	96.2	56.1	55.3
100°	43.0	51.5	162.1	70.4	59.5
102.5°	47.4	56.9	206.8	133.5	85.6
105°	54.1	64.2	226.2	293.4	202.5
107.5°	60.7	66.3	212.6	414.3	390.3
110°	65.2	71.1	205.5	432.2	465.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	70.9	76.8	199.7	417.5	472.5
115°	77.9	85.5	191.0	393.5	459.4
117.5°	84.8	94.1	188.5	366.2	434.0
120°	90.2	99.9	183.4	345.7	416.3
122.5°	95.0	104.3	178.5	329.2	394.2
125°	101.8	111.4	178.5	309.3	365.8
127.5°	106.7	118.6	178.8	286.2	341.9
130°	109.2	123.3	179.7	270.7	323.7
132.5°	111.4	125.5	178.4	263.8	307.3
135°	117.9	130.9	178.1	254.7	292.4
137.5°	123.9	137.8	178.1	244.7	277.0
140°	128.7	141.7	178.1	238.9	268.3
142.5°	133.6	145.6	179.0	232.1	259.6
145°	139.6	151.3	179.3	221.9	245.4
147.5°	146.8	157.1	180.7	214.6	232.7
150°	151.6	161.0	181.7	209.7	225.0
152.5°	156.4	164.9	181.7	205.8	218.3
155°	163.6	169.5	182.9	201.1	210.6
157.5°	169.4	175.1	184.3	198.2	205.0
160°	173.3	178.0	185.3	196.2	202.1
162.5°	176.1	180.8	186.3	195.2	199.2
165°	181.7	184.0	187.7	192.6	196.1
167.5°	184.8	186.9	188.9	191.4	193.5
170°	187.7	188.9	188.9	191.3	192.5
172.5°	188.7	190.8	189.9	190.4	191.5
175°	191.3	192.5	191.3	190.1	188.9
177.5°	191.3	192.2	191.3	191.3	190.3
180°	191.3	191.3	191.3	191.3	191.3

(END OF REPORT)