

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P199423

Luminaire Tested: **S122-DIW-ULO-1-35-0048-1D-UDD-1-NA-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199423
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P27883 P27986)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122-DIW-ULO-1-35-0048-1D-UDD-1-NA-W
Description: DEFINE 2-INCH DIRECT/INDIRECT WALL LED LUMINAIRE
UPLIGHT LLO-3500K, NO LENS
DOWNLIGHT LL1-3500K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

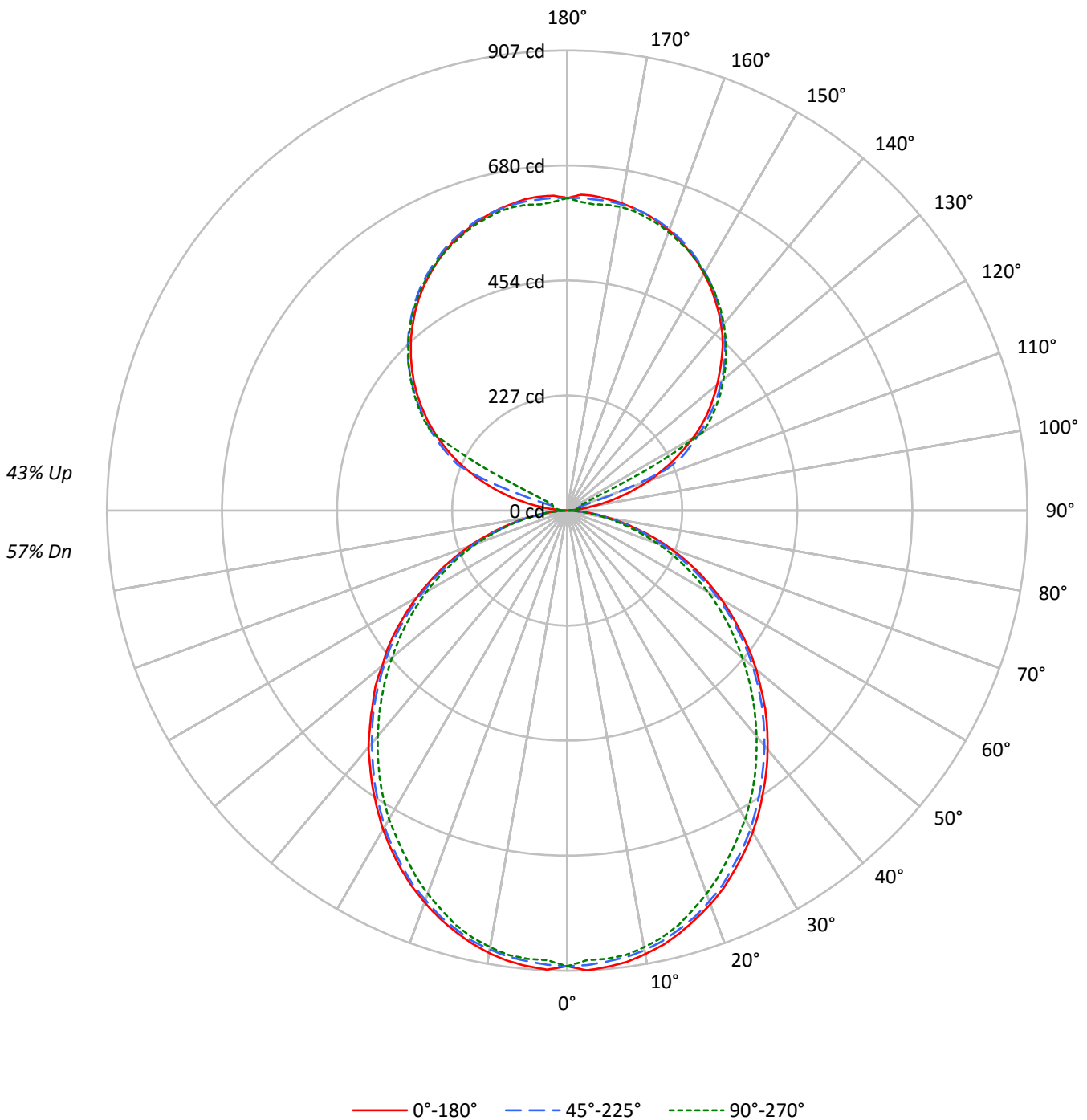
Lumens per Lamp: N/A
Luminaire Lumens: 4060.0 lumens
Efficiency: N/A
Efficacy: 101.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.17 / 1.31
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4.08' x H: 0.38')
CIE Type: General Diffuse

Input Watts (W): 40.1
Input Voltage (V): NR
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: 25 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	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	77	74	72	66	64	62	55	54	53	48								
2	91	83	77	72	84	78	72	67	67	63	59	58	55	52	49	47	45	40								
3	83	73	66	60	77	68	62	56	59	54	50	51	47	44	43	40	38	34								
4	76	65	57	51	70	61	53	48	53	47	43	45	41	38	39	35	33	29								
5	69	58	49	43	64	54	47	41	47	41	37	41	36	33	35	31	29	25								
6	64	52	44	38	59	49	41	36	43	37	32	37	32	29	32	28	25	22								
7	59	47	39	33	55	44	37	31	39	33	28	34	29	25	29	25	22	20								
8	55	42	35	29	51	40	33	28	35	29	25	31	26	23	26	23	20	18								
9	51	39	31	26	48	37	30	25	32	27	23	28	24	20	24	21	18	16								
10	48	36	28	23	45	34	27	22	30	24	20	26	22	18	23	19	16	15								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	14204	14204	14204
5°	14221	11766	14199
10°	14029	10047	13996
15°	13764	8642	13708
20°	13450	7436	13383
25°	13076	6418	13006
30°	12697	5578	12588
35°	12234	4827	12122
40°	11783	4152	11676
45°	11312	3552	11114
50°	10783	3013	10552
55°	10192	2523	10024
60°	9593	2068	9344
65°	8861	1624	8558
70°	7950	1221	7566
75°	6640	822	6194
80°	4953	478	4492
85°	3072	189	2585



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.7	2.1
10°-20°	239.7	5.9
20°-30°	353.5	8.7
30°-40°	412.3	10.2
40°-50°	413.1	10.2
50°-60°	361.4	8.9
60°-70°	265.9	6.5
70°-80°	144.1	3.5
80°-90°	36.9	0.9
90°-100°	15.5	0.4
100°-110°	69.2	1.7
110°-120°	201.1	5.0
120°-130°	314.2	7.7
130°-140°	338.7	8.3
140°-150°	320.1	7.9
150°-160°	261.0	6.4
160°-170°	169.9	4.2
170°-180°	58.5	1.4
0°-30°	677.9	16.7
0°-40°	1090.2	26.9
0°-60°	1864.7	45.9
0°-90°	2311.7	56.9
90°-120°	285.8	7.0
90°-150°	1258.9	31.0
90°-180°	1748.0	43.1
0°-180°	4060.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	898	898	898	898	898	
5°	903	892	887	892	902	86
15°	861	854	846	853	858	243
25°	781	774	754	772	777	360
35°	674	665	644	660	668	422
45°	552	542	516	537	542	425
55°	418	410	386	403	411	374
65°	283	272	253	264	274	280
75°	146	139	126	130	136	155
85°	35	33	28	28	29	39
90°	1	4	5	4	1	3
95°	15	12	14	14	26	21
105°	111	24	29	24	131	118
115°	230	249	51	257	246	226
125°	339	350	359	356	348	303
135°	432	440	443	444	436	333
145°	508	512	513	516	510	318
155°	566	569	565	570	566	261
165°	605	605	599	604	603	171
175°	622	616	606	616	621	59
180°	616	616	616	616	616	



TEST NUMBER: P199423

CATALOG NUMBER: S122-DIW-ULO-1-35-0048-1D-UDD-1-NA-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	898.1	898.1	898.1	898.1	898.1	898.1	898.1	898.1	898.1
2.5°	907.1	894.6	896.7	893.9	887.0	893.2	896.0	893.9	905.7
5°	902.9	890.4	892.5	889.0	887.0	889.0	891.8	889.0	901.5
7.5°	897.4	883.5	887.7	885.6	883.5	884.9	887.0	882.1	895.3
10°	887.7	873.8	880.0	875.8	873.8	875.2	878.6	871.7	885.6
12.5°	876.5	862.7	868.9	864.0	862.0	862.0	868.2	860.6	873.1
15°	861.3	850.1	854.3	849.5	846.0	848.1	852.9	847.4	857.8
17.5°	843.9	834.2	839.0	831.4	825.1	830.0	837.0	830.7	841.1
20°	825.8	814.7	819.6	809.2	803.6	807.8	816.8	811.9	821.7
22.5°	805.7	795.3	799.4	785.6	780.0	783.5	796.7	791.8	800.8
25°	781.4	773.1	773.7	759.9	753.6	757.8	771.7	768.9	777.2
27.5°	757.8	749.4	750.1	734.2	727.2	732.8	746.7	744.6	752.2
30°	732.1	724.4	723.7	707.8	702.2	705.7	719.6	719.6	725.8
32.5°	703.6	697.3	693.9	679.3	673.7	677.9	689.7	691.8	696.6
35°	674.4	670.3	665.4	651.5	643.9	649.4	660.5	663.3	668.2
37.5°	645.3	640.4	634.8	620.9	612.6	619.6	629.3	634.1	637.6
40°	614.7	611.2	605.0	591.1	580.7	587.6	598.7	604.3	609.1
42.5°	583.4	581.4	573.7	559.1	548.7	556.3	568.2	573.0	575.1
45°	552.2	549.4	542.5	527.2	516.1	524.4	536.9	541.8	542.5
47.5°	517.5	518.1	509.8	494.5	483.4	491.8	502.9	509.8	512.6
50°	486.2	486.9	477.2	461.9	450.8	457.0	470.2	477.2	475.8
52.5°	452.9	454.9	444.5	429.2	418.1	424.4	437.6	445.2	445.9
55°	418.1	421.6	410.5	395.2	385.5	391.7	402.8	411.9	411.2
57.5°	384.8	387.6	376.5	362.6	352.8	358.4	368.1	379.9	377.1
60°	351.5	354.2	342.4	328.5	320.2	323.0	334.1	343.8	342.4
62.5°	317.4	320.2	307.7	295.2	285.5	289.6	299.4	311.2	307.7
65°	283.4	285.5	272.3	261.2	252.8	257.0	263.9	276.4	273.7
67.5°	249.3	250.7	238.9	228.5	221.6	223.7	229.9	240.3	238.9
70°	215.3	216.7	205.6	195.9	189.6	191.7	196.6	206.3	204.9
72.5°	180.6	182.7	171.6	162.5	156.3	158.4	161.8	170.9	168.8
75°	145.9	147.2	138.9	132.0	126.4	127.1	129.9	136.8	136.1
77.5°	113.9	117.4	108.4	102.1	97.9	98.6	102.1	105.6	104.2
80°	82.7	86.8	80.6	75.7	72.2	71.5	74.3	77.1	75.0
82.5°	58.3	59.0	54.9	51.4	47.9	47.9	50.0	52.1	50.0
85°	34.7	36.1	32.6	29.9	27.8	27.1	28.5	30.6	29.2
87.5°	16.7	17.4	13.9	12.5	10.4	9.7	10.4	11.8	11.8
90°	1.4	3.5	3.5	4.2	4.9	4.9	4.2	4.2	0.7
92.5°	2.1	5.0	5.0	6.1	6.4	7.5	8.6	8.9	9.6
95°	15.0	10.7	12.1	13.2	13.9	15.0	14.3	13.2	26.1
97.5°	33.5	13.6	17.1	17.8	18.9	19.3	19.3	15.0	47.5
100°	56.0	15.7	20.3	23.2	23.9	23.9	21.8	33.5	73.2
102.5°	82.4	70.0	22.1	25.7	27.1	26.1	23.2	113.9	101.7
105°	111.0	126.0	23.6	27.1	28.6	27.8	24.3	140.3	130.6
107.5°	141.0	152.8	25.0	28.6	30.0	28.9	29.6	167.4	159.5
110°	171.0	180.9	112.1	29.6	31.1	29.6	155.3	194.9	188.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	199.5	209.9	210.6	31.4	31.8	33.9	230.9	222.7	217.4
115°	229.5	238.1	249.1	144.9	50.7	159.5	257.3	250.2	245.5
117.5°	257.0	265.2	273.7	254.8	194.2	277.3	282.7	277.3	272.7
120°	285.9	294.1	299.4	308.0	308.7	308.7	307.6	303.4	298.4
122.5°	314.4	319.8	324.1	332.6	335.5	332.3	331.6	327.6	323.7
125°	339.4	344.4	350.1	355.8	358.7	355.5	355.8	350.8	348.0
127.5°	363.0	367.2	374.7	378.3	381.2	377.6	379.0	373.7	371.5
130°	385.8	388.7	397.2	400.1	402.6	400.4	401.5	395.8	394.0
132.5°	408.3	412.2	419.4	420.4	423.3	420.1	424.0	416.1	415.4
135°	431.8	435.1	440.4	440.8	442.9	441.1	444.3	437.9	435.8
137.5°	454.0	455.4	460.0	458.6	461.8	459.0	463.6	457.2	455.8
140°	473.2	474.3	477.5	478.2	480.4	477.9	481.5	475.0	474.3
142.5°	491.1	492.5	495.4	495.0	497.5	495.0	499.3	493.6	492.9
145°	507.9	510.0	512.5	511.4	513.2	511.8	516.1	510.0	509.7
147.5°	524.6	525.4	528.9	527.1	528.2	526.4	531.1	526.1	525.4
150°	539.3	540.7	542.8	540.7	541.1	540.0	544.6	540.3	539.6
152.5°	553.9	553.6	556.8	552.5	554.3	552.5	557.8	553.6	553.6
155°	565.7	565.3	569.3	564.6	565.3	563.9	570.0	565.0	566.0
157.5°	577.5	575.7	580.3	575.7	574.3	575.3	580.0	575.3	577.5
160°	587.8	586.0	590.3	585.3	584.2	585.0	590.0	585.7	586.4
162.5°	596.7	594.2	598.2	592.8	592.8	591.7	598.2	593.9	596.0
165°	604.6	601.7	604.9	599.6	598.9	598.2	603.9	601.0	603.2
167.5°	610.3	607.4	610.3	604.2	604.9	603.5	609.2	607.4	609.9
170°	615.7	612.1	613.2	607.8	607.8	606.7	612.8	611.0	614.6
172.5°	619.2	615.3	615.3	609.2	607.8	608.5	614.9	614.6	619.6
175°	622.4	617.1	615.7	609.9	606.0	609.6	615.7	616.7	621.4
177.5°	623.1	618.2	616.7	610.3	609.2	609.6	617.1	617.4	621.4
180°	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0	616.0

(END OF REPORT)