

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: P199399

Luminaire Tested: **S122-DIP-U1-LO-35-X-X0048-1D-UDD-1-NA-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199399
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-DIP-U1-LO-35-X-X0048-1D-UDD-1-NA-W
Description: DEFINE 2-INCH DIRECT/INDIRECT PENDANT LED LUMINAIRE
UPLIGHT LL1-3500K, NO LENS
DOWNLIGHT LLO-3500K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4589.5 lumens
Efficiency: N/A
Efficacy: 118.3 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: Semi-Indirect

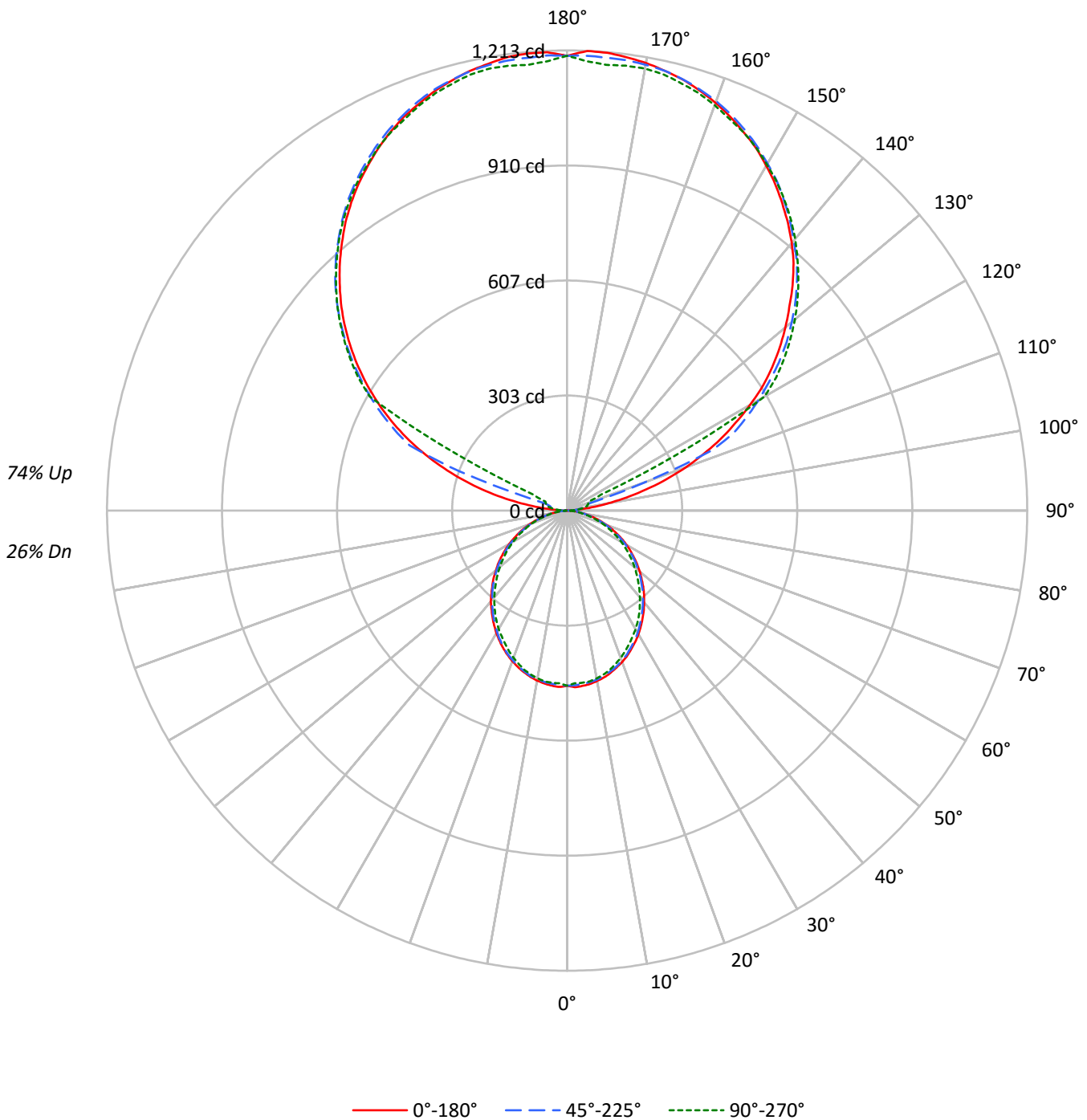
Input Watts (W): 38.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	101	101	101	101	90	90	90	90	70	70	70	51	51	51	34	34	34	26
1	92	88	85	81	82	79	76	73	61	59	57	45	44	43	30	29	29	22
2	84	77	71	66	75	69	64	60	54	50	47	39	37	35	26	25	24	18
3	77	68	61	55	68	61	55	50	47	43	40	35	32	30	23	22	21	16
4	70	60	52	46	62	54	47	42	42	37	34	31	28	26	21	19	18	13
5	64	53	45	40	57	48	41	36	37	33	29	28	25	22	19	17	15	12
6	59	47	40	34	52	43	36	31	33	29	25	25	22	19	17	15	13	10
7	54	43	35	30	48	38	32	27	30	25	22	23	19	17	15	13	12	9
8	50	39	31	26	45	35	28	24	27	23	19	21	17	15	14	12	11	8
9	47	35	28	23	42	32	25	21	25	20	17	19	16	13	13	11	10	7
10	44	32	25	20	39	29	23	19	23	18	15	17	14	12	12	10	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	7299	7299	7299
5°	7308	6046	7297
10°	7208	5163	7191
15°	7073	4441	7044
20°	6912	3821	6876
25°	6719	3297	6684
30°	6525	2866	6469
35°	6286	2480	6228
40°	6056	2133	6000
45°	5812	1825	5709
50°	5540	1548	5423
55°	5239	1296	5151
60°	4929	1063	4803
65°	4552	835	4396
70°	4084	627	3888
75°	3409	423	3186
80°	2545	246	2306
85°	1576	97	1328



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.5	0.9
10°-20°	123.2	2.7
20°-30°	181.7	4.0
30°-40°	211.8	4.6
40°-50°	212.3	4.6
50°-60°	185.7	4.0
60°-70°	136.6	3.0
70°-80°	74.1	1.6
80°-90°	19.0	0.4
90°-100°	29.5	0.6
100°-110°	134.6	2.9
110°-120°	391.3	8.5
120°-130°	611.5	13.3
130°-140°	659.2	14.4
140°-150°	623.0	13.6
150°-160°	508.0	11.1
160°-170°	330.6	7.2
170°-180°	113.9	2.5
0°-30°	348.3	7.6
0°-40°	560.2	12.2
0°-60°	958.2	20.9
0°-90°	1187.8	25.9
90°-120°	555.4	12.1
90°-150°	2449.1	53.4
90°-180°	3402.0	74.1
0°-180°	4589.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	462	462	462	462	462	
5°	464	459	456	458	463	44
15°	443	439	435	438	441	125
25°	402	398	387	396	399	185
35°	346	342	331	339	343	217
45°	284	279	265	276	279	219
55°	215	211	198	207	211	192
65°	146	140	130	136	141	144
75°	75	71	65	67	70	80
85°	18	17	14	15	15	20
90°	1	2	2	2	0	2
95°	29	24	27	28	51	41
105°	216	46	56	47	254	230
115°	447	485	99	501	478	440
125°	660	681	698	692	677	589
135°	840	857	862	865	848	648
145°	988	997	999	1004	992	619
155°	1101	1108	1100	1109	1102	508
165°	1177	1177	1166	1175	1174	332
175°	1211	1198	1179	1198	1209	115
180°	1199	1199	1199	1199	1199	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	461.5	461.5	461.5	461.5	461.5	461.5	461.5	461.5	461.5
2.5°	466.1	459.7	460.8	459.3	455.8	459.0	460.4	459.3	465.4
5°	464.0	457.5	458.6	456.8	455.8	456.8	458.3	456.8	463.3
7.5°	461.1	454.0	456.1	455.0	454.0	454.7	455.8	453.3	460.0
10°	456.1	449.0	452.2	450.1	449.0	449.7	451.5	447.9	455.0
12.5°	450.4	443.3	446.5	444.0	442.9	442.9	446.1	442.2	448.6
15°	442.6	436.8	439.0	436.5	434.7	435.8	438.3	435.4	440.8
17.5°	433.6	428.6	431.1	427.2	424.0	426.5	430.1	426.9	432.2
20°	424.4	418.6	421.1	415.8	412.9	415.1	419.7	417.2	422.2
22.5°	414.0	408.7	410.8	403.7	400.8	402.6	409.4	406.9	411.5
25°	401.5	397.2	397.6	390.4	387.2	389.4	396.5	395.1	399.4
27.5°	389.4	385.1	385.5	377.2	373.7	376.5	383.7	382.6	386.5
30°	376.2	372.2	371.9	363.7	360.8	362.6	369.7	369.7	373.0
32.5°	361.5	358.3	356.5	349.0	346.2	348.3	354.4	355.5	358.0
35°	346.5	344.4	341.9	334.8	330.8	333.7	339.4	340.8	343.3
37.5°	331.6	329.1	326.2	319.1	314.8	318.4	323.4	325.8	327.6
40°	315.9	314.1	310.9	303.7	298.4	301.9	307.6	310.5	313.0
42.5°	299.8	298.7	294.8	287.3	282.0	285.9	291.9	294.4	295.5
45°	283.7	282.3	278.7	270.9	265.2	269.5	275.9	278.4	278.7
47.5°	265.9	266.2	262.0	254.1	248.4	252.7	258.4	262.0	263.4
50°	249.8	250.2	245.2	237.3	231.6	234.8	241.6	245.2	244.5
52.5°	232.7	233.8	228.4	220.6	214.9	218.1	224.8	228.8	229.1
55°	214.9	216.6	210.9	203.1	198.1	201.3	207.0	211.6	211.3
57.5°	197.7	199.2	193.4	186.3	181.3	184.2	189.2	195.2	193.8
60°	180.6	182.0	176.0	168.8	164.5	166.0	171.7	176.7	176.0
62.5°	163.1	164.5	158.1	151.7	146.7	148.8	153.8	159.9	158.1
65°	145.6	146.7	139.9	134.2	129.9	132.1	135.6	142.0	140.6
67.5°	128.1	128.8	122.8	117.4	113.9	114.9	118.1	123.5	122.8
70°	110.6	111.4	105.6	100.6	97.4	98.5	101.0	106.0	105.3
72.5°	92.8	93.9	88.2	83.5	80.3	81.4	83.2	87.8	86.7
75°	74.9	75.7	71.4	67.8	65.0	65.3	66.7	70.3	70.0
77.5°	58.5	60.3	55.7	52.5	50.3	50.7	52.5	54.2	53.5
80°	42.5	44.6	41.4	38.9	37.1	36.8	38.2	39.6	38.5
82.5°	30.0	30.3	28.2	26.4	24.6	24.6	25.7	26.8	25.7
85°	17.8	18.6	16.8	15.3	14.3	13.9	14.6	15.7	15.0
87.5°	8.6	8.9	7.1	6.4	5.4	5.0	5.4	6.1	6.1
90°	0.7	1.8	1.8	2.1	2.5	2.5	2.1	2.1	0.4
92.5°	4.2	9.7	9.7	11.8	12.5	14.6	16.7	17.4	18.8
95°	29.2	20.8	23.6	25.7	27.1	29.2	27.8	25.7	50.7
97.5°	65.3	26.4	33.3	34.7	36.8	37.5	37.5	29.2	92.4
100°	109.0	30.6	39.6	45.1	46.5	46.5	42.4	65.3	142.4
102.5°	160.4	136.1	43.1	50.0	52.8	50.7	45.1	221.6	198.0
105°	216.0	245.2	45.8	52.8	55.6	54.2	47.2	273.0	254.2
107.5°	274.4	297.3	48.6	55.6	58.3	56.3	57.6	325.8	310.5
110°	332.7	352.1	218.1	57.6	60.4	57.6	302.1	379.2	366.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	388.3	408.4	409.8	61.1	61.8	66.0	449.4	433.4	423.0
115°	446.6	463.3	484.8	282.0	98.6	310.5	500.8	486.9	477.9
117.5°	500.1	516.1	532.7	495.9	377.8	539.7	550.1	539.7	530.6
120°	556.3	572.3	582.7	599.4	600.8	600.8	598.7	590.4	580.7
122.5°	611.9	622.3	630.7	647.3	652.9	646.6	645.3	637.6	630.0
125°	660.5	670.3	681.4	692.5	698.0	691.8	692.5	682.8	677.2
127.5°	706.4	714.7	729.3	736.2	741.8	734.9	737.6	727.2	723.0
130°	750.8	756.4	773.1	778.6	783.5	779.3	781.4	770.3	766.8
132.5°	794.6	802.2	816.1	818.2	823.8	817.5	825.1	809.9	808.5
135°	840.4	846.7	857.1	857.8	862.0	858.5	864.7	852.2	848.1
137.5°	883.5	886.3	895.3	892.5	898.8	893.2	902.2	889.7	887.0
140°	921.0	923.1	929.3	930.7	934.9	930.0	937.0	924.5	923.1
142.5°	955.7	958.5	964.1	963.4	968.2	963.4	971.7	960.6	959.2
145°	988.4	992.5	997.4	995.3	998.8	996.0	1004.3	992.5	991.8
147.5°	1021.0	1022.4	1029.3	1025.9	1028.0	1024.5	1033.5	1023.8	1022.4
150°	1049.5	1052.3	1056.4	1052.3	1053.0	1050.9	1059.9	1051.6	1050.2
152.5°	1078.0	1077.3	1083.5	1075.2	1078.7	1075.2	1085.6	1077.3	1077.3
155°	1100.9	1100.2	1107.8	1098.8	1100.2	1097.4	1109.2	1099.5	1101.6
157.5°	1123.8	1120.3	1129.4	1120.3	1117.6	1119.6	1128.7	1119.6	1123.8
160°	1143.9	1140.5	1148.8	1139.1	1137.0	1138.4	1148.1	1139.8	1141.2
162.5°	1161.3	1156.5	1164.1	1153.7	1153.7	1151.6	1164.1	1155.8	1159.9
165°	1176.6	1171.0	1177.3	1166.9	1165.5	1164.1	1175.2	1169.6	1173.8
167.5°	1187.7	1182.2	1187.7	1175.9	1177.3	1174.5	1185.6	1182.2	1187.0
170°	1198.1	1191.2	1193.3	1182.8	1182.8	1180.8	1192.6	1189.1	1196.0
172.5°	1205.1	1197.4	1197.4	1185.6	1182.8	1184.2	1196.7	1196.0	1205.8
175°	1211.3	1200.9	1198.1	1187.0	1179.4	1186.3	1198.1	1200.2	1209.2
177.5°	1212.7	1203.0	1200.2	1187.7	1185.6	1186.3	1200.9	1201.6	1209.2
180°	1198.8	1198.8	1198.8	1198.8	1198.8	1198.8	1198.8	1198.8	1198.8

(END OF REPORT)