

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: P199478

Luminaire Tested: **S124-DIP-U1-LO-30-X-X0048-1D-UDD-1-NA-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199478
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P28062 P28061)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124-DIP-U1-LO-30-X-X0048-1D-UDD-1-NA-W
Description: DEFINE 4-INCH DIRECT/INDIRECT PENDANT LED LUMINAIRE
UPLIGHT LL1-3000K, NO LENS
DOWNLIGHT LLO-3000K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4880.6 lumens
Efficiency: N/A
Efficacy: 125.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.14 / 1.28
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4.08' x H: 0.38')
CIE Type: Semi-Indirect

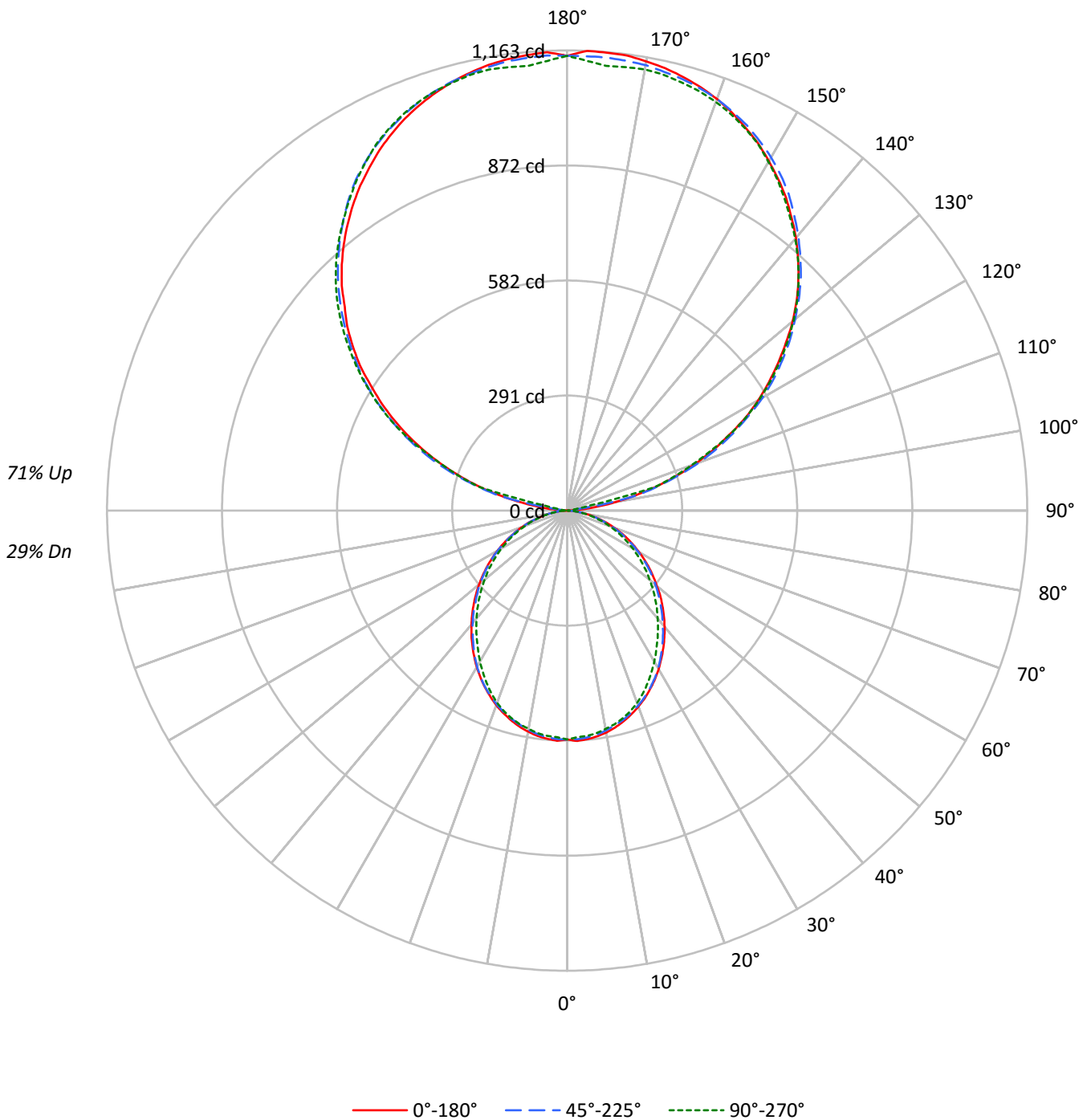
Input Watts (W): 38.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	102	102	102	102	92	92	92	92	72	72	72	54	54	54	37	37	37	29
1	93	89	85	82	83	80	77	74	63	61	59	47	46	45	33	32	31	25
2	85	78	72	67	76	70	65	61	55	52	49	42	39	37	29	28	27	21
3	77	68	61	56	69	62	56	51	49	44	41	37	34	32	26	24	23	18
4	71	60	53	47	63	54	48	43	43	39	35	33	30	27	23	21	20	15
5	65	54	46	40	58	48	42	37	39	34	30	29	26	23	21	19	17	13
6	60	48	40	35	53	43	37	32	35	30	26	26	23	20	19	17	15	12
7	55	43	36	30	49	39	32	28	31	26	23	24	21	18	17	15	13	10
8	51	39	32	27	46	35	29	24	28	24	20	22	18	16	16	14	12	9
9	47	36	28	24	42	32	26	22	26	21	18	20	17	14	15	12	11	8
10	44	33	26	21	40	30	23	19	24	19	16	19	15	13	13	11	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	4576	4576	4576
5°	4568	4134	4560
10°	4504	3755	4484
15°	4406	3418	4384
20°	4293	3088	4262
25°	4157	2753	4118
30°	4013	2439	3962
35°	3843	2148	3789
40°	3672	1891	3608
45°	3487	1655	3418
50°	3278	1432	3220
55°	3091	1225	3011
60°	2860	1027	2778
65°	2631	832	2526
70°	2337	640	2229
75°	1966	450	1823
80°	1476	274	1383
85°	868	121	819



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.5	1.1
10°-20°	153.6	3.1
20°-30°	225.0	4.6
30°-40°	257.9	5.3
40°-50°	254.2	5.2
50°-60°	219.1	4.5
60°-70°	159.8	3.3
70°-80°	87.1	1.8
80°-90°	22.8	0.5
90°-100°	29.2	0.6
100°-110°	232.3	4.8
110°-120°	449.6	9.2
120°-130°	584.6	12.0
130°-140°	634.6	13.0
140°-150°	600.4	12.3
150°-160°	489.8	10.0
160°-170°	317.1	6.5
170°-180°	109.1	2.2
0°-30°	433.1	8.9
0°-40°	690.9	14.2
0°-60°	1164.3	23.9
0°-90°	1434.0	29.4
90°-120°	711.0	14.6
90°-150°	2530.6	51.9
90°-180°	3447.0	70.6
0°-180°	4880.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	579	579	579	579	579	
5°	580	576	572	575	579	55
15°	551	547	543	544	549	155
25°	497	495	481	491	492	229
35°	424	419	398	413	418	265
45°	340	333	314	328	334	263
55°	254	249	232	244	247	226
65°	168	164	152	160	162	166
75°	86	83	77	80	80	92
85°	20	20	18	19	18	22
90°	1	1	1	1	1	3
95°	40	10	11	11	36	51
105°	232	238	228	232	225	244
115°	451	463	453	457	440	447
125°	651	664	656	650	639	582
135°	826	835	827	819	805	637
145°	965	976	959	962	944	603
155°	1068	1074	1066	1064	1050	492
165°	1134	1129	1120	1123	1122	320
175°	1162	1149	1128	1149	1155	111
180°	1149	1149	1149	1149	1149	



TEST NUMBER: P199478

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	578.6	578.6	578.6	578.6	578.6	578.6	578.6	578.6	578.6
2.5°	582.8	576.2	578.3	576.9	573.0	576.9	577.9	575.8	582.1
5°	580.0	573.7	575.8	573.7	572.0	573.4	575.1	572.7	579.0
7.5°	575.8	569.2	570.9	569.2	567.4	568.8	569.9	567.8	574.4
10°	569.9	562.9	564.6	562.5	560.4	561.8	562.9	560.8	567.4
12.5°	561.5	554.9	556.2	554.9	553.1	553.5	554.2	552.1	559.0
15°	551.4	544.7	547.2	545.8	543.3	544.7	544.4	541.9	548.6
17.5°	539.8	533.5	536.3	534.9	531.4	533.5	533.5	529.7	536.7
20°	527.2	520.6	524.4	520.9	517.1	519.2	520.9	516.4	523.4
22.5°	513.2	506.2	510.8	504.5	500.3	502.7	506.9	502.0	508.3
25°	496.8	491.2	495.4	486.6	481.0	484.5	491.2	486.3	492.2
27.5°	480.7	475.1	478.6	468.8	461.1	465.6	474.0	469.8	475.1
30°	462.8	458.3	460.0	448.5	440.5	445.3	455.1	452.7	456.9
32.5°	443.3	439.8	439.8	427.5	419.1	424.7	435.2	434.5	437.3
35°	423.7	421.6	419.1	405.8	397.8	403.0	413.2	416.0	417.7
37.5°	403.7	402.3	397.8	384.8	377.1	382.7	392.2	396.4	397.4
40°	383.1	382.4	376.1	363.8	356.1	361.7	371.5	376.8	376.4
42.5°	362.1	362.8	355.1	343.2	335.5	341.1	350.2	357.2	355.4
45°	340.4	342.5	333.4	322.6	314.5	320.5	327.8	336.5	333.7
47.5°	319.4	321.9	312.4	301.2	293.5	299.8	307.2	316.6	312.4
50°	295.6	300.5	291.4	280.2	272.5	278.5	287.2	295.3	290.4
52.5°	275.0	278.5	270.4	259.6	252.2	257.1	265.9	273.9	268.7
55°	253.6	257.5	249.4	238.6	231.6	236.5	244.2	252.2	247.0
57.5°	231.2	235.1	227.7	218.0	211.3	216.6	224.6	230.2	225.3
60°	209.6	214.5	206.4	197.0	191.4	195.6	201.9	208.5	203.6
62.5°	188.6	193.1	185.4	176.7	171.4	175.3	181.9	187.2	182.6
65°	168.3	171.1	164.4	156.4	151.8	154.3	160.2	166.2	161.6
67.5°	147.6	150.4	143.8	136.8	132.2	134.7	139.6	145.2	141.0
70°	126.6	129.1	123.5	117.2	113.3	115.8	120.3	124.5	120.7
72.5°	106.7	108.5	103.2	98.3	95.5	97.3	100.4	104.3	102.5
75°	86.4	88.5	83.3	79.1	76.6	77.3	79.8	82.9	80.1
77.5°	67.2	69.3	65.1	61.9	60.5	60.9	62.6	65.1	61.6
80°	49.3	51.1	48.6	45.8	44.4	45.1	46.2	47.6	46.2
82.5°	33.2	35.0	33.2	31.5	30.4	31.1	31.5	32.2	31.1
85°	19.6	21.0	19.9	18.9	18.5	18.5	18.9	19.6	18.5
87.5°	8.7	9.8	9.1	8.4	7.3	7.7	8.0	8.7	8.0
90°	0.7	1.7	1.4	1.0	1.0	1.0	1.4	1.7	0.7
92.5°	12.9	6.8	6.8	6.8	6.8	6.8	6.8	7.5	8.9
95°	40.2	25.9	10.2	10.9	10.9	10.9	10.9	17.7	36.1
97.5°	78.3	91.2	19.7	12.9	12.9	12.9	19.7	86.5	72.8
100°	123.9	136.2	99.4	31.3	23.1	29.3	87.1	128.7	117.8
102.5°	175.0	190.6	183.1	102.8	59.2	87.8	177.7	182.5	170.2
105°	231.5	245.1	237.6	241.0	228.1	232.2	232.2	234.9	224.7
107.5°	287.3	298.9	294.8	292.1	281.9	284.6	291.4	290.0	278.5
110°	343.1	354.7	354.7	345.9	333.6	338.4	349.3	342.5	332.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	399.0	407.8	409.9	405.1	390.8	397.6	403.7	392.8	386.7
115°	451.4	464.3	463.0	463.6	453.4	453.4	456.8	448.7	439.8
117.5°	507.9	517.4	515.4	516.1	509.3	506.5	505.9	500.4	490.9
120°	557.6	568.5	569.9	565.1	560.3	554.9	558.3	550.8	540.6
122.5°	604.6	616.8	618.9	614.1	609.3	603.2	605.9	597.8	588.2
125°	650.9	664.5	664.5	661.1	656.3	650.2	649.5	642.7	639.3
127.5°	697.2	712.8	710.1	706.7	702.6	695.8	692.4	688.3	682.9
130°	744.1	755.0	752.3	749.6	746.9	738.7	736.0	731.9	725.8
132.5°	787.0	793.2	794.5	789.1	789.1	778.9	778.2	773.4	762.5
135°	826.5	832.7	835.4	827.2	827.2	817.0	819.0	812.2	805.4
137.5°	864.0	868.7	872.1	862.6	863.3	853.8	857.2	845.6	842.9
140°	900.1	902.1	908.2	898.0	896.7	888.5	893.3	881.7	878.3
142.5°	932.1	934.8	942.3	931.4	928.0	921.8	928.0	913.7	911.6
145°	964.7	965.4	976.3	963.4	959.3	954.5	962.0	945.0	943.6
147.5°	993.3	992.0	1004.9	994.0	989.9	985.2	993.3	973.6	973.6
150°	1019.9	1018.5	1030.8	1021.9	1017.8	1013.8	1018.5	1000.1	1000.1
152.5°	1045.8	1041.0	1053.2	1045.8	1044.4	1038.3	1042.4	1024.7	1027.4
155°	1067.5	1062.8	1074.4	1068.2	1065.5	1060.7	1063.5	1046.4	1050.5
157.5°	1088.6	1081.2	1091.4	1088.6	1083.9	1081.2	1081.2	1067.5	1072.3
160°	1107.0	1098.2	1107.0	1102.9	1098.9	1095.5	1098.2	1084.6	1090.7
162.5°	1122.0	1113.8	1118.6	1113.2	1111.1	1105.7	1111.1	1100.2	1107.0
165°	1134.3	1125.4	1128.8	1121.3	1120.0	1115.9	1122.7	1115.2	1122.0
167.5°	1145.2	1137.0	1135.6	1128.1	1128.1	1122.7	1130.9	1126.8	1133.6
170°	1152.6	1145.8	1143.1	1132.2	1132.2	1127.5	1139.0	1135.6	1143.8
172.5°	1160.1	1151.3	1146.5	1134.9	1130.2	1130.9	1145.2	1142.4	1150.6
175°	1161.5	1154.7	1149.2	1137.0	1128.1	1134.3	1148.6	1149.2	1155.4
177.5°	1162.9	1156.1	1149.2	1139.0	1137.7	1136.3	1151.3	1150.6	1159.5
180°	1149.2	1149.2	1149.2	1149.2	1149.2	1149.2	1149.2	1149.2	1149.2

(END OF REPORT)