

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: P199439

Luminaire Tested: **S123-DIP-U1-1-35-X-X0048-1D-UDD-1-NA-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199439
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P27889 P27889)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123-DIP-U1-1-35-X-X0048-1D-UDD-1-NA-W
Description: DEFINE 3-INCH DIRECT/INDIRECT PENDANT LED LUMINAIRE
UPLIGHT LL1-3500K, NO LENS
DOWNLIGHT LL1-3500K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6183.0 lumens
Efficiency: N/A
Efficacy: 118.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.32
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4.08' x H: 0.38')
CIE Type: General Diffuse

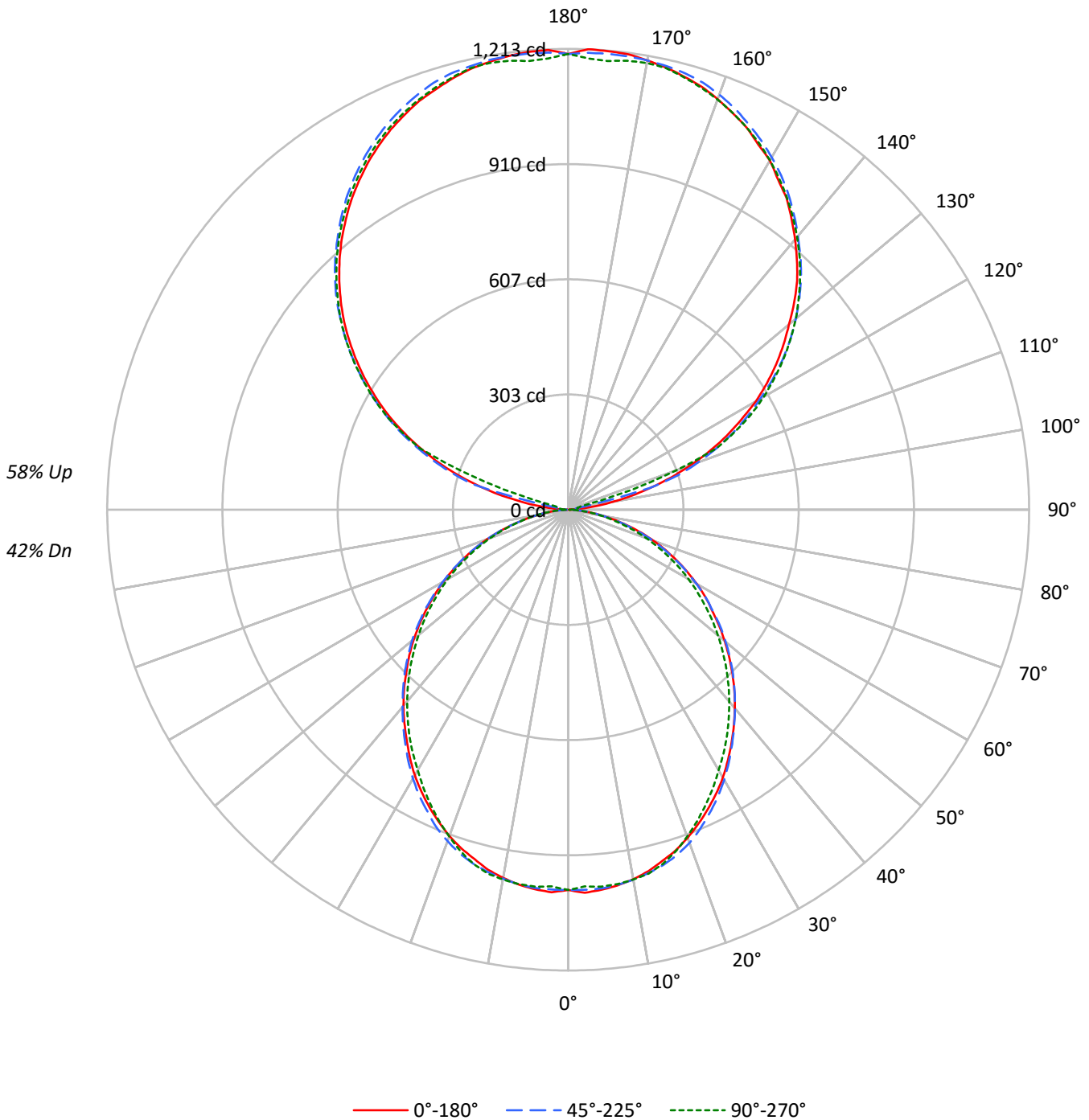
Input Watts (W): 52
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	105	105	105	105	96	96	96	96	79	79	79	63	63	63	49	49	49	42
1	96	92	88	85	88	84	81	78	69	67	65	56	54	53	43	42	42	36
2	87	80	74	69	80	73	68	64	61	57	54	49	46	44	38	36	35	30
3	80	70	63	57	73	65	58	53	54	49	45	43	40	37	34	32	30	25
4	73	62	55	49	66	57	50	45	48	42	38	39	35	32	30	28	26	22
5	67	55	47	42	61	51	44	39	42	37	33	35	31	28	27	24	22	19
6	62	50	42	36	56	46	39	34	38	33	29	31	27	24	25	22	20	17
7	57	45	37	31	52	41	34	29	35	29	25	28	24	21	23	20	17	15
8	53	41	33	28	48	37	31	26	32	26	22	26	22	19	21	18	16	13
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	19	16	14	12
10	46	34	27	22	42	31	25	21	27	22	18	22	18	15	18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	10554	10554	10554
5°	10545	9319	10532
10°	10407	8369	10370
15°	10197	7513	10145
20°	9977	6644	9924
25°	9702	5863	9639
30°	9412	5166	9332
35°	9064	4570	8955
40°	8717	4017	8619
45°	8347	3505	8225
50°	7949	3025	7836
55°	7507	2568	7382
60°	7101	2145	6887
65°	6558	1722	6297
70°	5881	1313	5573
75°	4930	905	4572
80°	3689	541	3302
85°	2089	231	1847



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.9	1.5
10°-20°	270.9	4.4
20°-30°	400.3	6.5
30°-40°	466.0	7.5
40°-50°	467.6	7.6
50°-60°	409.3	6.6
60°-70°	302.3	4.9
70°-80°	165.1	2.7
80°-90°	42.7	0.7
90°-100°	28.0	0.5
100°-110°	197.5	3.2
110°-120°	472.6	7.6
120°-130°	611.8	9.9
130°-140°	664.0	10.7
140°-150°	628.6	10.2
150°-160°	513.4	8.3
160°-170°	333.6	5.4
170°-180°	114.5	1.9
0°-30°	766.1	12.4
0°-40°	1232.1	19.9
0°-60°	2109.0	34.1
0°-90°	2619.1	42.4
90°-120°	698.1	11.3
90°-150°	2602.5	42.1
90°-180°	3564.0	57.6
0°-180°	6183.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1001	1001	1001	1001	1001	
5°	1004	1001	996	1000	1003	95
15°	957	968	965	965	952	270
25°	870	881	856	876	864	401
35°	749	752	728	748	740	469
45°	611	613	588	608	602	471
55°	462	464	439	460	454	415
65°	315	311	291	304	302	311
75°	162	159	147	150	151	173
85°	35	38	35	34	31	41
90°	2	4	3	4	1	4
95°	35	15	17	17	43	47
105°	227	223	34	261	246	241
115°	460	478	483	490	475	453
125°	668	689	692	691	678	596
135°	852	867	863	868	852	655
145°	1002	1011	1004	1012	995	625
155°	1111	1121	1111	1122	1104	511
165°	1180	1189	1178	1189	1175	333
175°	1211	1204	1186	1205	1209	115
180°	1200	1200	1200	1200	1200	



TEST NUMBER: P199439

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1000.9	1000.9	1000.9	1000.9	1000.9	1000.9	1000.9	1000.9	1000.9
2.5°	1009.2	998.8	1001.6	1000.2	992.5	1000.2	1000.9	998.1	1007.8
5°	1004.3	995.3	1000.9	998.8	996.0	998.8	999.5	993.9	1003.0
7.5°	997.4	989.8	996.0	995.3	993.9	995.3	994.6	987.0	995.3
10°	987.7	980.7	989.1	990.5	988.4	989.8	986.3	978.6	984.2
12.5°	974.5	968.9	979.3	982.1	980.7	981.4	976.6	965.4	971.0
15°	957.1	954.3	968.2	970.3	964.8	968.2	964.8	950.9	952.2
17.5°	940.4	937.7	952.9	950.2	942.5	948.1	948.8	933.5	934.9
20°	918.9	917.5	933.5	925.2	915.4	922.4	928.6	913.4	914.0
22.5°	895.3	896.7	908.5	896.7	887.0	893.9	905.7	891.1	889.7
25°	869.6	873.8	881.4	867.5	856.4	864.0	876.5	868.2	864.0
27.5°	843.2	849.5	852.2	836.3	825.1	832.8	848.8	843.2	836.3
30°	814.0	821.7	821.0	804.3	791.8	800.1	816.8	816.1	807.1
32.5°	782.1	792.5	786.9	771.0	760.5	766.8	783.5	785.6	775.1
35°	749.4	760.5	752.2	736.9	727.9	734.2	748.0	754.3	740.4
37.5°	716.1	727.2	717.5	702.9	693.9	700.1	713.3	721.0	707.8
40°	682.1	692.5	682.8	670.3	659.1	666.1	677.9	686.2	674.4
42.5°	647.3	658.4	648.0	635.5	623.7	632.7	643.2	651.5	639.0
45°	611.2	623.0	613.3	598.7	587.6	596.6	608.4	615.4	602.2
47.5°	574.4	588.3	577.2	561.9	550.8	559.8	572.3	579.3	566.8
50°	537.6	549.4	541.1	525.1	514.0	522.3	536.2	541.8	530.0
52.5°	500.1	514.0	504.3	488.3	477.9	484.8	498.0	504.3	491.8
55°	461.9	473.0	464.0	450.8	439.0	447.3	459.8	464.0	454.2
57.5°	428.5	436.9	428.5	414.0	402.8	409.1	420.9	426.5	416.7
60°	390.3	398.0	389.7	375.8	366.0	371.6	381.3	388.3	378.5
62.5°	352.1	359.8	350.1	337.6	328.5	334.8	343.1	349.4	340.3
65°	314.6	321.6	311.2	300.1	291.0	297.3	303.5	310.5	302.1
67.5°	276.4	282.7	273.0	261.9	254.2	259.1	264.6	271.6	264.6
70°	238.9	243.8	235.5	225.0	218.1	222.3	227.1	232.7	226.4
72.5°	201.4	207.7	197.3	188.9	182.7	184.1	189.6	193.8	188.9
75°	162.5	166.7	159.1	152.1	146.6	147.9	150.0	156.3	150.7
77.5°	126.4	131.3	125.0	118.8	114.6	116.0	116.7	120.9	115.3
80°	92.4	96.5	92.4	87.5	84.7	85.4	85.4	88.2	82.7
82.5°	61.8	66.0	63.2	59.7	59.0	57.6	57.6	59.7	54.2
85°	35.4	40.3	38.2	35.4	34.7	34.0	34.0	35.4	31.3
87.5°	16.0	19.4	17.4	15.3	13.9	13.2	13.2	15.3	11.8
90°	2.1	4.9	4.2	2.8	2.8	2.8	3.5	4.2	1.4
92.5°	7.6	9.0	9.0	9.0	9.0	10.4	11.1	11.1	13.2
95°	35.4	13.2	15.3	16.7	17.4	17.4	16.7	14.6	43.1
97.5°	73.6	58.3	18.8	20.8	22.2	21.5	20.1	74.3	83.3
100°	119.5	135.4	20.8	23.6	25.0	24.3	22.9	152.1	132.0
102.5°	170.2	188.9	75.0	26.4	27.1	26.4	114.6	204.9	188.2
105°	227.1	243.1	223.0	44.5	34.0	54.2	261.2	259.1	245.9
107.5°	284.8	300.7	304.2	197.3	178.5	207.0	319.5	315.3	305.6
110°	343.8	355.6	363.3	366.7	299.4	371.6	376.5	370.9	362.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	402.8	415.4	422.3	427.2	421.6	430.6	432.0	426.5	418.8
115°	459.8	470.9	477.9	485.5	483.4	486.9	489.7	482.0	475.1
117.5°	513.3	527.2	531.3	539.0	541.8	539.0	541.8	535.5	529.3
120°	569.5	580.7	583.4	590.4	593.9	589.7	593.2	587.6	580.7
122.5°	620.2	630.0	636.9	639.7	643.2	638.3	642.5	636.2	630.0
125°	668.2	678.6	689.0	688.3	691.8	686.2	691.1	683.5	677.9
127.5°	714.0	724.4	736.9	734.9	737.6	732.1	738.3	729.3	724.4
130°	758.5	771.0	782.1	779.3	782.1	777.2	782.8	774.4	769.6
132.5°	806.4	818.2	825.1	822.4	822.4	819.6	827.2	818.2	811.3
135°	852.2	859.9	866.8	862.7	862.7	859.9	868.2	859.9	851.5
137.5°	891.1	899.5	904.3	901.5	901.5	898.1	906.4	898.8	890.4
140°	928.6	936.3	940.4	937.0	937.0	934.2	942.5	936.3	927.2
142.5°	965.4	972.4	976.6	971.0	971.0	968.2	978.6	971.7	961.3
145°	1001.6	1006.4	1011.3	1003.0	1003.6	999.5	1012.0	1005.0	995.3
147.5°	1028.7	1037.7	1043.2	1033.5	1033.5	1030.0	1043.2	1036.3	1025.2
150°	1061.3	1064.8	1071.0	1062.7	1062.0	1059.2	1071.7	1064.1	1054.4
152.5°	1083.5	1091.9	1097.4	1088.4	1087.7	1084.2	1098.1	1089.8	1080.0
155°	1110.6	1114.1	1121.0	1112.7	1110.6	1109.2	1122.4	1112.0	1104.4
157.5°	1130.1	1134.2	1143.9	1136.3	1130.8	1132.8	1143.3	1131.4	1125.2
160°	1150.2	1151.6	1162.7	1155.1	1148.8	1151.6	1162.0	1147.4	1145.3
162.5°	1167.6	1168.3	1178.7	1169.6	1164.8	1165.5	1178.0	1163.4	1159.9
165°	1180.1	1178.7	1189.1	1181.5	1178.0	1178.0	1189.1	1175.9	1175.2
167.5°	1191.9	1191.2	1196.0	1191.2	1190.5	1187.0	1195.3	1186.3	1188.4
170°	1200.9	1198.1	1200.9	1194.0	1194.0	1190.5	1201.6	1194.0	1196.7
172.5°	1209.2	1203.7	1203.7	1194.0	1191.9	1191.2	1204.4	1200.2	1204.4
175°	1211.3	1206.5	1204.4	1194.0	1185.6	1191.9	1205.1	1202.3	1209.2
177.5°	1213.4	1205.8	1203.7	1191.2	1189.1	1189.8	1204.4	1203.0	1211.3
180°	1199.5	1199.5	1199.5	1199.5	1199.5	1199.5	1199.5	1199.5	1199.5

(END OF REPORT)