

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: P199470

Luminaire Tested: **S124-DIW-U1-1-40-0048-1D-UDD-1-NA-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199470
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-DIW-U1-1-40-0048-1D-UDD-1-NA-W
Description: DEFINE 4-INCH DIRECT/INDIRECT WALL LED LUMINAIRE
UPLIGHT LL1-4000K, NO LENS
DOWNLIGHT LL1-4000K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

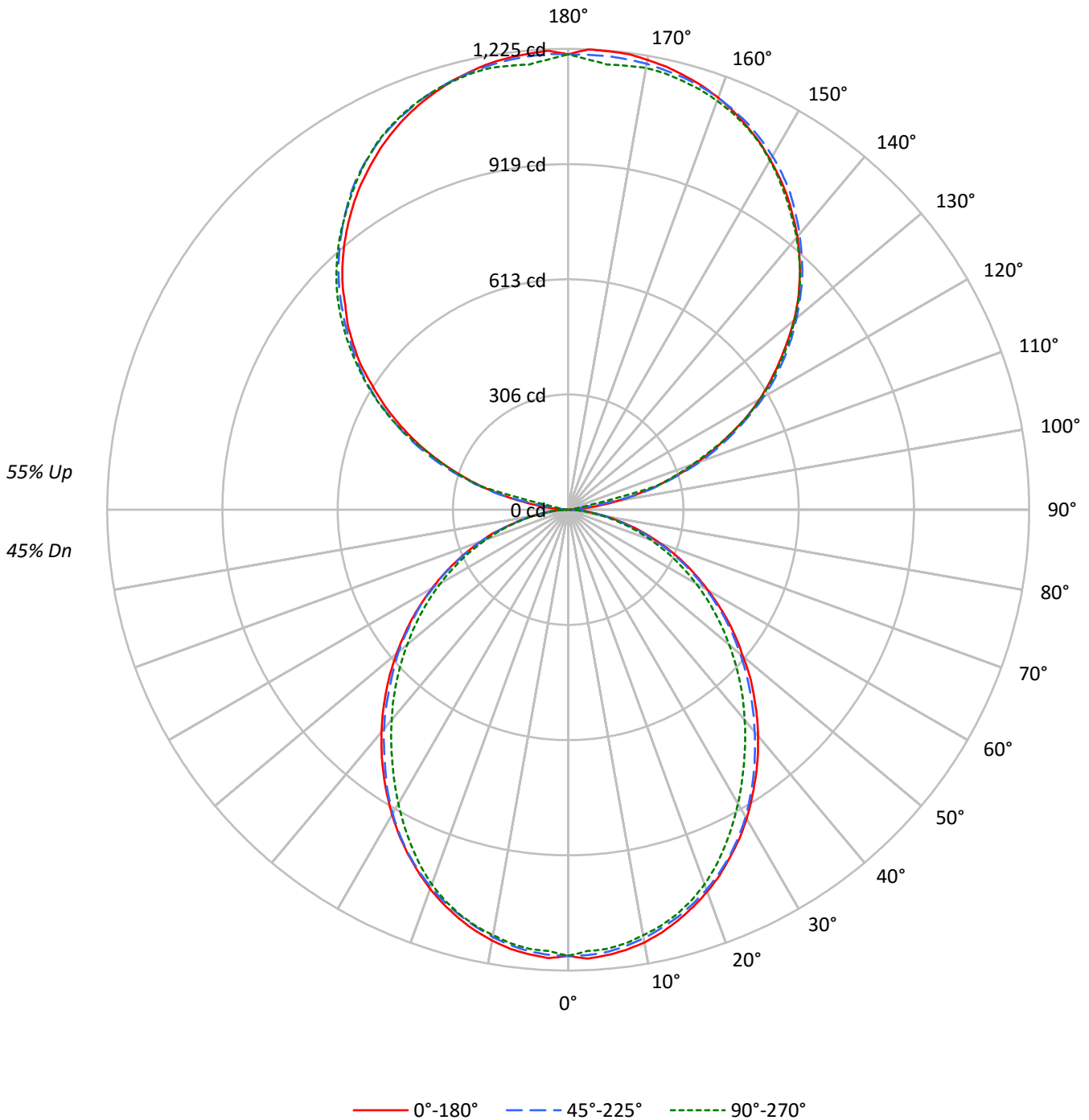
Lumens per Lamp: N/A
Luminaire Lumens: 6568.8 lumens
Efficiency: N/A
Efficacy: 126.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.14 / 1.28
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4.08' x H: 0.38')
CIE Type: General Diffuse

Input Watts (W): 52
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	0
RCR																		
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	97	92	89	85	88	85	82	79	71	68	66	58	56	54	45	44	43	38
2	88	81	75	70	80	74	69	65	62	58	55	51	48	46	40	38	37	32
3	80	71	64	58	73	65	59	54	55	50	46	45	41	39	36	33	31	27
4	74	63	55	49	67	58	51	46	49	43	39	40	36	33	32	29	27	23
5	68	56	48	42	62	52	45	39	43	38	34	36	32	29	29	26	24	20
6	62	50	42	37	57	46	39	34	39	34	30	32	28	25	26	23	21	18
7	57	45	37	32	53	42	35	30	36	30	26	29	25	22	24	21	19	16
8	53	41	34	28	49	38	31	27	32	27	23	27	23	20	22	19	17	14
9	50	38	30	25	45	35	28	24	30	24	21	25	21	18	20	17	15	13
10	46	34	27	23	43	32	26	21	27	22	19	23	19	16	19	16	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	9378	9378	9378
5°	9362	8472	9345
10°	9230	7697	9190
15°	9029	7005	8983
20°	8799	6327	8735
25°	8519	5643	8441
30°	8226	4997	8120
35°	7876	4402	7766
40°	7525	3876	7395
45°	7146	3393	7006
50°	6719	2936	6599
55°	6336	2510	6170
60°	5861	2104	5694
65°	5392	1706	5178
70°	4791	1313	4568
75°	4030	923	3737
80°	3027	562	2833
85°	1780	249	1682



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.7	1.7
10°-20°	314.8	4.8
20°-30°	461.1	7.0
30°-40°	528.5	8.0
40°-50°	521.0	7.9
50°-60°	449.1	6.8
60°-70°	327.4	5.0
70°-80°	178.6	2.7
80°-90°	46.9	0.7
90°-100°	30.9	0.5
100°-110°	244.6	3.7
110°-120°	473.4	7.2
120°-130°	615.6	9.4
130°-140°	668.3	10.2
140°-150°	632.3	9.6
150°-160°	515.8	7.9
160°-170°	333.9	5.1
170°-180°	114.9	1.7
0°-30°	887.5	13.5
0°-40°	1416.0	21.6
0°-60°	2386.1	36.3
0°-90°	2939.0	44.7
90°-120°	749.0	11.4
90°-150°	2665.2	40.6
90°-180°	3630.0	55.3
0°-180°	6568.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1186	1186	1186	1186	1186	
5°	1189	1180	1172	1179	1187	113
15°	1130	1121	1114	1116	1124	318
25°	1018	1015	986	1007	1009	469
35°	868	859	815	847	856	543
45°	698	683	645	672	684	538
55°	520	511	475	500	506	464
65°	345	337	311	328	331	341
75°	177	171	157	164	164	188
85°	40	41	38	39	38	46
90°	1	3	2	3	1	5
95°	42	11	12	12	38	54
105°	244	250	240	244	237	257
115°	475	488	478	481	463	471
125°	685	700	691	684	673	613
135°	870	880	871	862	848	671
145°	1016	1028	1010	1013	994	635
155°	1124	1131	1122	1120	1106	519
165°	1194	1189	1179	1182	1182	337
175°	1223	1210	1188	1210	1217	116
180°	1210	1210	1210	1210	1210	



TEST NUMBER: P199470

CATALOG NUMBER: S124-DIW-U1-1-40-0048-1D-UDD-1-NA-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1185.9	1185.9	1185.9	1185.9	1185.9	1185.9	1185.9	1185.9	1185.9
2.5°	1194.5	1180.9	1185.2	1182.3	1174.4	1182.3	1184.5	1180.2	1193.1
5°	1188.8	1175.9	1180.2	1175.9	1172.3	1175.1	1178.7	1173.7	1186.6
7.5°	1180.2	1166.5	1170.1	1166.5	1163.0	1165.8	1168.0	1163.7	1177.3
10°	1168.0	1153.6	1157.2	1152.9	1148.6	1151.5	1153.6	1149.3	1163.0
12.5°	1150.8	1137.1	1140.0	1137.1	1133.6	1134.3	1135.7	1131.4	1145.7
15°	1130.0	1116.3	1121.4	1118.5	1113.5	1116.3	1115.6	1110.6	1124.2
17.5°	1106.3	1093.4	1099.1	1096.3	1089.1	1093.4	1093.4	1085.5	1099.9
20°	1080.5	1066.9	1074.8	1067.6	1059.7	1064.0	1067.6	1058.3	1072.6
22.5°	1051.8	1037.5	1046.8	1033.9	1025.3	1030.3	1038.9	1028.9	1041.8
25°	1018.1	1006.6	1015.3	997.3	985.9	993.0	1006.6	996.6	1008.8
27.5°	985.1	973.7	980.8	960.8	945.0	954.3	971.5	962.9	973.7
30°	948.6	939.3	942.8	919.2	902.7	912.7	932.8	927.8	936.4
32.5°	908.4	901.3	901.3	876.2	858.9	870.4	891.9	890.5	896.2
35°	868.3	864.0	858.9	831.7	815.2	826.0	846.8	852.5	856.1
37.5°	827.4	824.5	815.2	788.7	772.9	784.4	803.7	812.3	814.5
40°	785.1	783.7	770.8	745.7	729.9	741.4	761.4	772.2	771.5
42.5°	742.1	743.5	727.7	703.4	687.6	699.1	717.7	732.0	728.5
45°	697.6	701.9	683.3	661.1	644.6	656.8	671.8	689.7	684.0
47.5°	654.6	659.6	640.3	617.3	601.6	614.5	629.5	648.9	640.3
50°	605.9	615.9	597.2	574.3	558.5	570.7	588.6	605.1	595.1
52.5°	563.6	570.7	554.2	532.0	516.9	527.0	544.9	561.4	550.6
55°	519.8	527.7	511.2	489.0	474.6	484.7	500.5	516.9	506.2
57.5°	473.9	481.8	466.8	446.7	433.1	443.8	460.3	471.8	461.7
60°	429.5	439.5	423.0	403.7	392.2	400.8	413.7	427.3	417.3
62.5°	386.5	395.8	380.0	362.1	351.3	359.2	372.8	383.6	374.3
65°	344.9	350.6	337.0	320.5	311.2	316.2	328.4	340.6	331.2
67.5°	302.6	308.3	294.7	280.3	271.0	276.0	286.1	297.5	288.9
70°	259.5	264.6	253.1	240.2	232.3	237.3	246.6	255.2	247.4
72.5°	218.7	222.3	211.5	201.5	195.7	199.3	205.8	213.7	210.1
75°	177.1	181.4	170.6	162.0	157.0	158.5	163.5	169.9	164.2
77.5°	137.7	142.0	133.4	126.9	124.0	124.8	128.3	133.4	126.2
80°	101.1	104.7	99.7	93.9	91.1	92.5	94.6	97.5	94.6
82.5°	68.1	71.7	68.1	64.5	62.4	63.8	64.5	66.0	63.8
85°	40.2	43.0	40.9	38.7	38.0	38.0	38.7	40.2	38.0
87.5°	17.9	20.1	18.6	17.2	15.1	15.8	16.5	17.9	16.5
90°	1.4	3.6	2.9	2.2	2.2	2.2	2.9	3.6	1.4
92.5°	13.6	7.2	7.2	7.2	7.2	7.2	7.2	7.9	9.3
95°	42.3	27.2	10.8	11.5	11.5	11.5	11.5	18.6	38.0
97.5°	82.5	96.1	20.8	13.6	13.6	13.6	20.8	91.1	76.7
100°	130.5	143.4	104.7	33.0	24.4	30.8	91.8	135.5	124.0
102.5°	184.3	200.8	192.9	108.3	62.4	92.5	187.1	192.2	179.2
105°	243.8	258.1	250.2	253.8	240.2	244.5	244.5	247.4	236.6
107.5°	302.6	314.8	310.5	307.6	296.8	299.7	306.9	305.4	293.2
110°	361.4	373.5	373.5	364.2	351.3	356.3	367.8	360.6	350.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	420.2	429.5	431.6	426.6	411.5	418.7	425.2	413.7	407.2
115°	475.4	489.0	487.5	488.3	477.5	477.5	481.1	472.5	463.2
117.5°	534.9	544.9	542.8	543.5	536.3	533.4	532.7	527.0	516.9
120°	587.2	598.7	600.1	595.1	590.1	584.3	587.9	580.0	569.3
122.5°	636.7	649.6	651.7	646.7	641.7	635.2	638.1	629.5	619.5
125°	685.4	699.8	699.8	696.2	691.2	684.7	684.0	676.8	673.2
127.5°	734.2	750.7	747.8	744.2	739.9	732.8	729.2	724.9	719.1
130°	783.7	795.1	792.3	789.4	786.5	777.9	775.1	770.8	764.3
132.5°	828.8	835.3	836.7	831.0	831.0	820.2	819.5	814.5	803.0
135°	870.4	876.9	879.7	871.1	871.1	860.4	862.5	855.4	848.2
137.5°	909.9	914.9	918.5	908.4	909.1	899.1	902.7	890.5	887.6
140°	947.9	950.0	956.5	945.7	944.3	935.7	940.7	928.5	924.9
142.5°	981.6	984.4	992.3	980.8	977.3	970.8	977.3	962.2	960.0
145°	1016.0	1016.7	1028.2	1014.5	1010.2	1005.2	1013.1	995.2	993.7
147.5°	1046.1	1044.6	1058.3	1046.8	1042.5	1037.5	1046.1	1025.3	1025.3
150°	1074.0	1072.6	1085.5	1076.2	1071.9	1067.6	1072.6	1053.3	1053.3
152.5°	1101.3	1096.3	1109.2	1101.3	1099.9	1093.4	1097.7	1079.1	1081.9
155°	1124.2	1119.2	1131.4	1124.9	1122.1	1117.1	1119.9	1102.0	1106.3
157.5°	1146.5	1138.6	1149.3	1146.5	1141.4	1138.6	1138.6	1124.2	1129.3
160°	1165.8	1156.5	1165.8	1161.5	1157.2	1153.6	1156.5	1142.2	1148.6
162.5°	1181.6	1173.0	1178.0	1172.3	1170.1	1164.4	1170.1	1158.6	1165.8
165°	1194.5	1185.2	1188.8	1180.9	1179.4	1175.1	1182.3	1174.4	1181.6
167.5°	1206.0	1197.4	1195.9	1188.0	1188.0	1182.3	1190.9	1186.6	1193.8
170°	1213.9	1206.7	1203.8	1192.3	1192.3	1187.3	1199.5	1195.9	1204.5
172.5°	1221.7	1212.4	1207.4	1195.2	1190.2	1190.9	1206.0	1203.1	1211.7
175°	1223.2	1216.0	1210.3	1197.4	1188.0	1194.5	1209.6	1210.3	1216.7
177.5°	1224.6	1217.4	1210.3	1199.5	1198.1	1196.6	1212.4	1211.7	1221.0
180°	1210.3	1210.3	1210.3	1210.3	1210.3	1210.3	1210.3	1210.3	1210.3

(END OF REPORT)