

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: P199481

Luminaire Tested: **S124-DIW-U1-LO-40-0048-1D-UDD-1-5-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P199481
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P28062 P28062)
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-LO-40-0048-1D-UDD-1-5-W
Description: DEFINE 4-INCH DIRECT/INDIRECT WALL LED LUMINAIRE
UPLIGHT LL1-4000K, SATIN WHITE DIFFUSER
DOWNLIGHT LLO-4000K, SATIN WHITE DIFFUSER
Light Source: -
757G
Ballast/Driver: ELECTRONIC DRIVERS

Summary

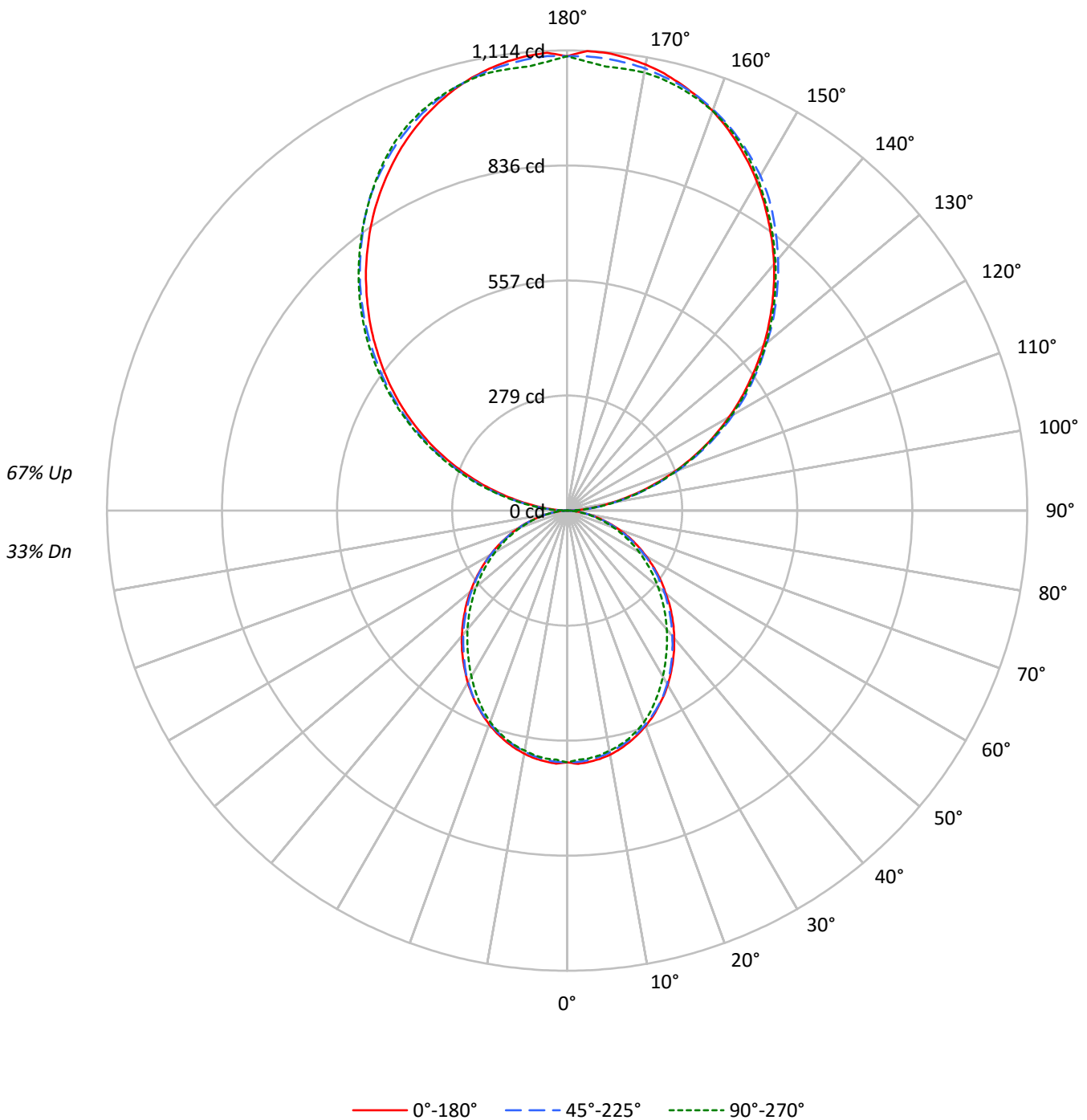
Lumens per Lamp: N/A
Luminaire Lumens: 4546.8 lumens
Efficiency: N/A
Efficacy: 117.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.14 / 1.28
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4.08' x H: 0.38')
CIE Type: Semi-Indirect

Input Watts (W): 38.8
Input Voltage (V): NR
Input Current (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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	33
1	94	90	86	83	85	81	78	75	65	63	61	50	48	47	36	35	34	28
2	86	79	73	68	77	71	66	62	57	53	50	44	42	39	32	30	29	24
3	78	69	62	56	70	62	56	52	50	46	42	39	36	33	28	26	25	20
4	71	61	53	48	64	55	49	44	45	40	36	35	31	29	25	23	21	17
5	66	54	46	41	59	49	42	37	40	35	31	31	27	25	23	20	19	15
6	60	49	41	35	54	44	37	32	36	31	27	28	24	22	21	18	16	13
7	56	44	36	31	50	40	33	28	32	27	24	25	22	19	19	16	15	12
8	52	40	32	27	46	36	30	25	29	24	21	23	20	17	17	15	13	11
9	48	36	29	24	43	33	27	22	27	22	19	21	18	15	16	14	12	10
10	45	33	26	21	40	30	24	20	25	20	17	20	16	14	15	12	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	4819	4819	4819
5°	4810	4354	4802
10°	4743	3955	4722
15°	4639	3600	4616
20°	4521	3251	4489
25°	4378	2899	4338
30°	4227	2568	4173
35°	4047	2262	3990
40°	3867	1992	3799
45°	3672	1743	3601
50°	3452	1508	3391
55°	3256	1290	3170
60°	3012	1081	2926
65°	2770	877	2661
70°	2463	675	2347
75°	2071	474	1921
80°	1554	289	1455
85°	912	128	863



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.4	1.3
10°-20°	161.7	3.6
20°-30°	236.9	5.2
30°-40°	271.6	6.0
40°-50°	267.7	5.9
50°-60°	230.8	5.1
60°-70°	168.3	3.7
70°-80°	91.8	2.0
80°-90°	24.1	0.5
90°-100°	56.4	1.2
100°-110°	205.0	4.5
110°-120°	363.0	8.0
120°-130°	482.6	10.6
130°-140°	542.7	11.9
140°-150°	533.6	11.7
150°-160°	450.3	9.9
160°-170°	298.7	6.6
170°-180°	104.1	2.3
0°-30°	456.0	10.0
0°-40°	727.6	16.0
0°-60°	1226.1	27.0
0°-90°	1510.2	33.2
90°-120°	624.5	13.7
90°-150°	2183.4	48.0
90°-180°	3037.0	66.8
0°-180°	4546.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	609	609	609	609	609	
5°	611	606	602	606	610	58
15°	581	576	572	573	578	164
25°	523	522	507	517	518	241
35°	446	441	419	435	440	279
45°	358	351	331	345	352	277
55°	267	263	244	257	260	238
65°	177	173	160	169	170	175
75°	91	88	81	84	84	97
85°	21	21	20	20	20	23
90°	1	2	1	2	1	4
95°	47	52	51	48	37	52
105°	190	199	196	192	177	202
115°	366	376	369	364	351	362
125°	536	548	544	536	520	480
135°	701	715	708	702	680	541
145°	851	870	857	856	831	533
155°	979	989	986	979	961	451
165°	1068	1065	1059	1058	1055	301
175°	1112	1098	1079	1097	1105	106
180°	1100	1100	1100	1100	1100	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	609.4	609.4	609.4	609.4	609.4	609.4	609.4	609.4	609.4
2.5°	613.8	606.8	609.0	607.5	603.5	607.5	608.6	606.4	613.1
5°	610.8	604.2	606.4	604.2	602.4	603.8	605.7	603.1	609.7
7.5°	606.4	599.4	601.3	599.4	597.6	599.1	600.2	597.9	604.9
10°	600.2	592.8	594.6	592.4	590.2	591.7	592.8	590.6	597.6
12.5°	591.3	584.3	585.8	584.3	582.5	582.8	583.6	581.4	588.7
15°	580.6	573.6	576.2	574.7	572.2	573.6	573.3	570.7	577.7
17.5°	568.5	561.8	564.8	563.3	559.6	561.8	561.8	557.8	565.2
20°	555.2	548.2	552.3	548.6	544.5	546.7	548.6	543.8	551.2
22.5°	540.5	533.1	537.9	531.3	526.8	529.4	533.8	528.7	535.3
25°	523.2	517.3	521.7	512.5	506.6	510.3	517.3	512.1	518.4
27.5°	506.2	500.3	504.0	493.7	485.6	490.4	499.2	494.8	500.3
30°	487.4	482.6	484.5	472.3	463.8	469.0	479.3	476.7	481.2
32.5°	466.8	463.1	463.1	450.2	441.4	447.3	458.3	457.6	460.5
35°	446.2	443.9	441.4	427.4	418.9	424.4	435.1	438.1	439.9
37.5°	425.2	423.7	418.9	405.3	397.2	403.1	413.0	417.4	418.5
40°	403.4	402.7	396.1	383.2	375.1	380.9	391.3	396.8	396.4
42.5°	381.3	382.1	373.9	361.4	353.3	359.2	368.8	376.2	374.3
45°	358.5	360.7	351.1	339.7	331.2	337.5	345.2	354.4	351.5
47.5°	336.4	338.9	329.0	317.2	309.1	315.7	323.5	333.4	329.0
50°	311.3	316.5	306.9	295.1	287.0	293.3	302.5	310.9	305.8
52.5°	289.6	293.3	284.8	273.4	265.6	270.8	280.0	288.5	282.9
55°	267.1	271.2	262.7	251.3	243.9	249.1	257.2	265.6	260.1
57.5°	243.5	247.6	239.8	229.5	222.5	228.1	236.5	242.4	237.3
60°	220.7	225.8	217.4	207.4	201.5	205.9	212.6	219.6	214.4
62.5°	198.6	203.4	195.3	186.1	180.5	184.6	191.6	197.1	192.3
65°	177.2	180.2	173.2	164.7	159.9	162.5	168.7	175.0	170.2
67.5°	155.5	158.4	151.4	144.1	139.3	141.8	147.0	152.9	148.5
70°	133.4	135.9	130.1	123.4	119.4	121.9	126.7	131.2	127.1
72.5°	112.4	114.2	108.7	103.5	100.6	102.4	105.7	109.8	107.9
75°	91.0	93.2	87.7	83.3	80.7	81.4	84.0	87.3	84.4
77.5°	70.7	72.9	68.5	65.2	63.7	64.1	65.9	68.5	64.8
80°	51.9	53.8	51.2	48.3	46.8	47.5	48.6	50.1	48.6
82.5°	35.0	36.8	35.0	33.2	32.1	32.8	33.2	33.9	32.8
85°	20.6	22.1	21.0	19.9	19.5	19.5	19.9	20.6	19.5
87.5°	9.2	10.3	9.6	8.8	7.7	8.1	8.5	9.2	8.5
90°	0.7	1.8	1.5	1.1	1.1	1.1	1.5	1.8	0.7
92.5°	21.5	24.4	25.1	22.9	22.9	22.2	20.8	20.1	12.9
95°	47.3	51.6	52.3	52.3	50.9	49.5	48.0	44.5	36.6
97.5°	76.7	81.7	83.2	81.7	82.5	81.0	77.4	73.8	66.0
100°	110.4	116.9	118.3	116.9	117.6	114.0	112.6	109.0	99.7
102.5°	147.7	155.6	156.3	154.9	154.9	152.0	150.6	146.3	136.9
105°	190.0	198.6	199.3	196.5	196.5	193.6	192.2	187.9	177.1
107.5°	233.0	241.6	241.6	238.8	238.8	236.6	233.7	230.9	220.1
110°	277.5	284.6	286.1	282.5	281.8	279.6	276.8	272.5	263.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	321.9	329.1	330.5	326.2	325.5	321.2	320.5	315.5	306.2
115°	366.4	373.5	375.7	370.7	369.2	364.2	364.2	359.2	350.6
117.5°	409.4	418.0	420.2	414.4	413.7	409.4	406.5	402.2	392.9
120°	452.4	463.2	464.6	458.2	457.4	452.4	451.0	445.2	435.9
122.5°	495.4	506.2	508.3	502.6	500.5	494.0	493.3	488.3	478.2
125°	536.3	548.5	548.5	545.6	543.5	538.5	535.6	529.9	519.8
127.5°	578.6	591.5	590.8	588.6	586.5	579.3	577.2	571.4	560.7
130°	620.2	631.7	631.7	630.2	628.8	622.3	618.8	613.0	600.8
132.5°	661.1	672.5	674.0	670.4	668.9	660.3	661.1	653.9	641.7
135°	701.2	711.2	714.8	709.1	708.4	699.1	701.9	692.6	680.4
137.5°	740.6	748.5	755.0	747.8	747.1	737.8	742.1	729.9	719.1
140°	779.4	785.8	794.4	785.8	784.4	775.8	780.1	767.2	757.9
142.5°	815.9	821.7	832.4	823.1	820.9	813.1	818.1	803.0	794.4
145°	851.1	855.4	869.7	859.7	856.8	849.6	856.1	837.4	831.0
147.5°	886.2	888.3	904.8	895.5	891.2	885.5	891.9	871.1	866.1
150°	919.2	919.2	935.7	928.5	924.9	918.5	922.8	902.7	899.1
152.5°	950.0	948.6	963.6	959.3	957.2	950.0	951.4	932.8	930.6
155°	978.7	975.8	989.4	987.3	985.9	978.7	978.7	960.0	960.8
157.5°	1005.9	1000.2	1013.1	1012.4	1009.5	1003.8	1002.3	985.9	988.0
160°	1029.6	1024.6	1033.2	1031.7	1029.6	1023.9	1023.9	1009.5	1013.1
162.5°	1050.4	1043.9	1051.1	1046.8	1046.1	1039.6	1042.5	1030.3	1035.3
165°	1068.3	1061.9	1065.4	1059.7	1059.0	1053.3	1058.3	1049.7	1055.4
167.5°	1084.1	1076.9	1076.2	1071.2	1069.7	1065.4	1071.2	1066.2	1072.6
170°	1096.3	1089.1	1086.9	1078.3	1076.9	1073.3	1081.9	1080.5	1086.2
172.5°	1105.6	1098.4	1093.4	1083.4	1078.3	1079.1	1090.5	1090.5	1097.0
175°	1112.0	1104.2	1098.4	1088.4	1079.1	1084.8	1097.0	1097.7	1104.9
177.5°	1113.5	1105.6	1100.6	1091.3	1087.7	1088.4	1101.3	1101.3	1109.2
180°	1099.9	1099.9	1099.9	1099.9	1099.9	1099.9	1099.9	1099.9	1099.9

(END OF REPORT)