

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: P243068

Luminaire Tested: **S121RDR-H880D935-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243068
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-62)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121RDR-H880D935-X4F0-XX-UDD-F-W
Description: DEFINE 1 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2275.1 lumens
Efficiency: N/A
Efficacy: 72.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 0.92 / 1.09
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')
CIE Type: Direct

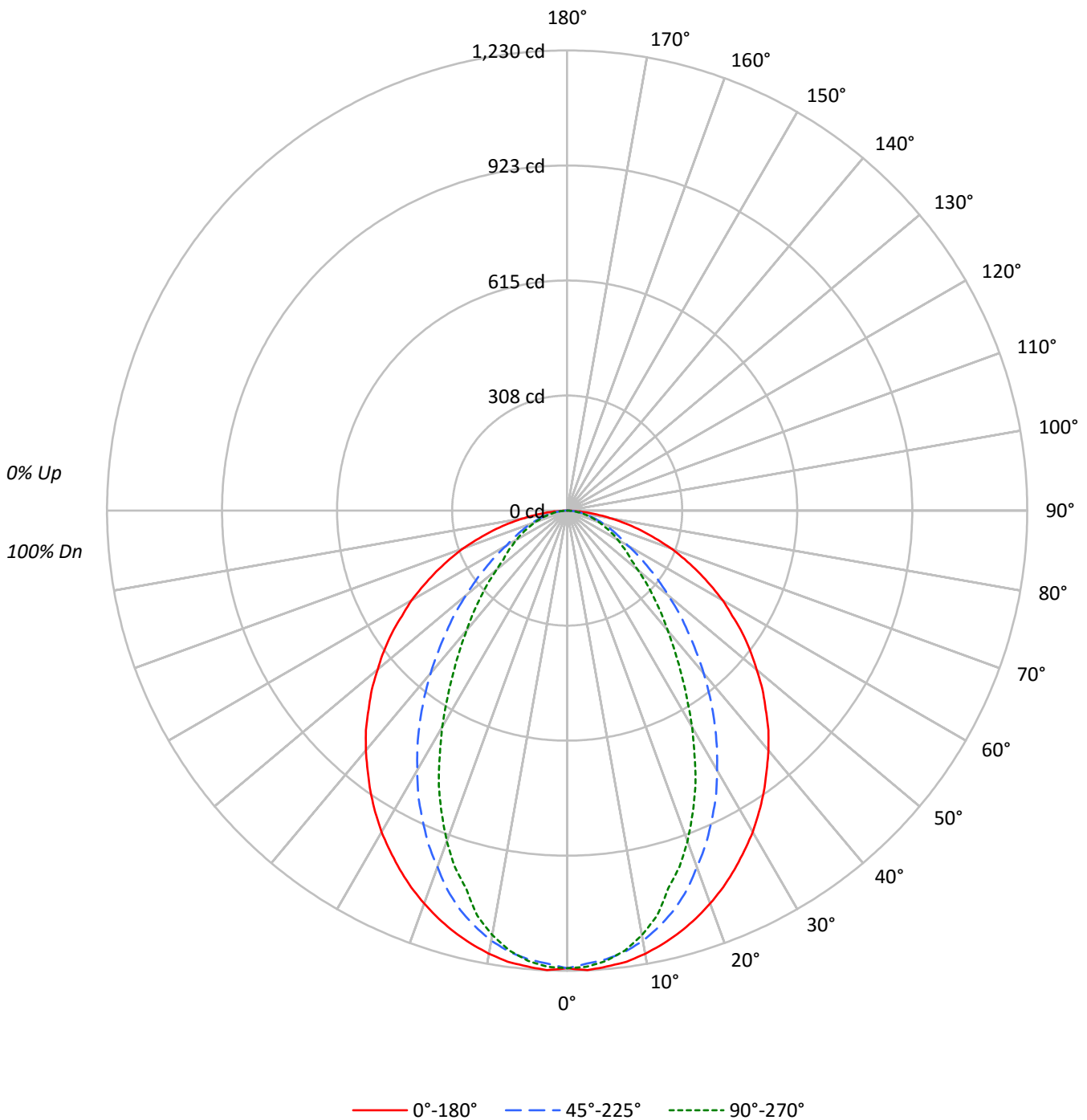
Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89					87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77					75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67					65				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59					57				
5	80	69	60	54	78	67	60	54	65	59	54	64	58	53	62	57	52					50				
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47					45				
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42					41				
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39					37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35					34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32					31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	36246	36246	36246
5°	36384	35799	35923
10°	36182	35123	34654
15°	35776	33902	32055
20°	35239	31970	29649
25°	34605	29862	26540
30°	33947	27419	22844
35°	33151	24788	19200
40°	32359	21973	16160
45°	31452	19070	13685
50°	30488	16249	11372
55°	29564	13710	10120
60°	28445	11117	9274
65°	27041	9956	8504
70°	25600	8984	7814
75°	23377	8071	7121
80°	19998	7081	6365
85°	15502	5983	5303



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.5	5.0
10°-20°	311.3	13.7
20°-30°	424.8	18.7
30°-40°	440.3	19.4
40°-50°	384.2	16.9
50°-60°	289.1	12.7
60°-70°	189.6	8.3
70°-80°	96.7	4.2
80°-90°	24.6	1.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	850.6	37.4
0°-40°	1290.9	56.7
0°-60°	1964.3	86.3
0°-90°	2275.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2275.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1223	1223	1223	1223	1223	
5°	1223	1217	1204	1211	1208	116
15°	1166	1150	1105	1074	1045	329
25°	1058	1015	913	837	812	488
35°	916	838	685	570	531	573
45°	751	642	455	354	327	580
55°	572	435	265	201	196	511
65°	386	240	142	125	121	382
75°	204	93	70	64	62	215
85°	46	19	18	16	16	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1223.3	1223.3	1223.3	1223.3	1223.3
2.5°	1229.6	1224.4	1211.9	1222.3	1220.2
5°	1223.3	1217.1	1203.6	1210.9	1207.8
7.5°	1216.1	1207.8	1189.1	1192.2	1186.0
10°	1202.6	1192.2	1167.4	1161.1	1151.8
12.5°	1186.0	1174.6	1138.3	1123.8	1109.3
15°	1166.3	1149.7	1105.2	1074.1	1045.0
17.5°	1143.5	1122.8	1063.7	1020.1	998.4
20°	1117.6	1090.6	1013.9	963.1	940.3
22.5°	1089.6	1055.4	967.3	903.0	876.0
25°	1058.5	1015.0	913.4	836.6	811.8
27.5°	1025.3	975.6	861.5	773.4	737.1
30°	992.2	929.9	801.4	702.9	667.7
32.5°	954.8	884.3	744.4	635.5	596.1
35°	916.5	837.7	685.3	570.2	530.8
37.5°	876.0	791.0	626.2	510.1	471.7
40°	836.6	740.2	568.1	452.0	417.8
42.5°	796.2	689.4	510.1	401.2	372.2
45°	750.6	641.7	455.1	353.5	326.6
47.5°	708.1	589.9	405.4	311.0	286.1
50°	661.4	539.1	352.5	271.6	246.7
52.5°	617.9	487.3	308.9	230.2	214.6
55°	572.3	435.4	265.4	201.1	195.9
57.5°	523.5	384.6	227.0	180.4	174.2
60°	480.0	335.9	187.6	161.7	156.5
62.5°	431.3	287.2	162.8	144.1	138.9
65°	385.7	240.5	142.0	125.4	121.3
67.5°	340.0	198.0	122.3	108.9	104.7
70°	295.5	157.6	103.7	93.3	90.2
72.5°	246.7	119.2	87.1	78.8	76.7
75°	204.2	93.3	70.5	64.3	62.2
77.5°	159.7	70.5	54.9	50.8	49.8
80°	117.2	50.8	41.5	38.4	37.3
82.5°	79.8	34.2	29.0	27.0	25.9
85°	45.6	18.7	17.6	15.6	15.6
87.5°	17.6	7.3	6.2	6.2	6.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)